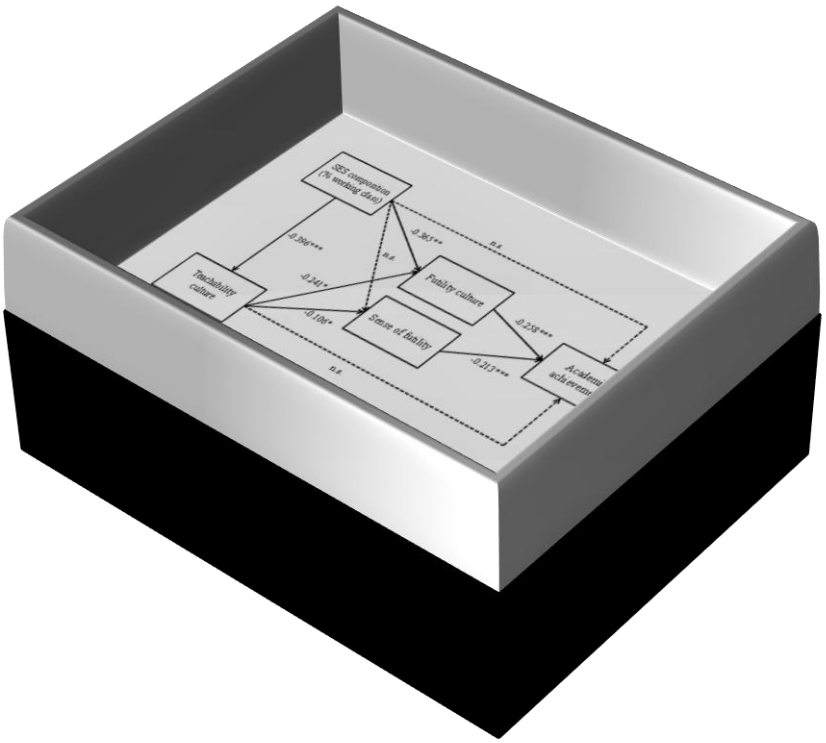
DE ZWARTE DOOS VAN SCHOOLSEGREGATIE GEOPEND

Een mixed-method onderzoek naar de effecten van schoolcompositie op de onderwijsprestaties, het zelfbeeld en het schoolwelbevinden van de leerlingen in het lager onderwijs met bijzondere aandacht voor intermediaire processen

ORHAN AGIRDAG



Proefschrift voorgelegd tot het behalen van de graad van doctor in de sociologie
Onder promotorschap van Prof. Dr. Mieke Van Houtte
Onder co-promotorschap van Prof. Dr. Piet Van Avermaet
Academiejaar 2010-2011

CUDOS Cultural Diversity, Opportunities & Socialization
UNIVERSITEIT GENT
steunpunt diversiteit & leren

Inhoud

Dankwoord

Hier heb ik *zo* naar uitgekeken. En nu ik dit dankwoord *moet* schrijven, lijken alle mogelijke manieren om eraan te beginnen verschrikkelijk stereotiep. Alle zinnen binnen mijn repertoire zouden kunnen doorgaan voor plagiaat. Denk maar aan *'een proefschrift schrijf je niet alleen',* of nog erger *'dit proefschrift had niet tot stand kunnen komen zonder de hulp van anderen'*. Echter, bepaalde stereotiepen kunnen zeer accuraat de werkelijkheid weergeven, zoals deze twee clichézinnen. Daarom kan ik mij zonder enige gêne richten tot mijn figuurlijke medeauteurs om hen persoonlijk te bedanken.

Beste Mieke. Op donderdag 29 november 2007 heb je samen met Piet mij het vertrouwen geschonken en daarmee ook mijn leven veranderd. Vier jaren lang heb jij me gevormd tot een kritische en productieve wetenschapper. Zonder jouw efficiëntie, jouw arbeidsethos, jouw inzichten en jouw liefde was dit proefschrift onbestaande. Je bent kortom mijn academische moeder en zonder jou was academicus Orhan niet geboren, noch getogen. En nu – in de vooravond van mijn vertrek naar de Verenigde Staten – heb ik nog steeds het gevoel dat ik nog kan leren van jou. Mieke, geef toe, op geen enkele manier zou ik je voldoende kunnen bedanken. Om het met Tupac te zeggen: *there's no way I can pay you back, but my plan is to show you that I understand, you are appreciated.*

Beste Piet. Ik wil je niet alleen bedanken voor alle energie die je in mij hebt gestoken als copromotor van dit proefschrift, maar ook omdat je al tijdens het schrijven van mijn licentiaatsverhandeling een inspiratiebron was. Ik verheug me op het feit dat we in de toekomst verder zullen samenwerken. Laten we nog jaren samen strijden voor een betere (onderwijs)wereld!

Beste Peter, de prachtige aanbevelingsbrief die je voor mij hebt neergepend, heeft de deuren van Los Angeles voor mij geopend. Met veel plezier denk ik ook terug aan de vele gesprekken die we gehad hebben. Ten slotte wil ik je bedanken omdat je mijn proefschrift wil beoordelen.

Ik had weer bijna '*geachte professor Dronkers'* geschreven, maar op jouw vraag hou ik het bij 'Jaap'. Beste Jaap, je zult merken dat jouw werk een belangrijke inspiratiebron is geweest voor mijn proefschrift. Ik wil jou ook bedanken om in mijn examencommissie te zetelen. Als ik jou kan overtuigen, dan is dit proefschrift echt wel geslaagd.

Dag Paul. Het is jouw verdienste dat het segregatieproject zo vruchtbaar is verlopen. En zonder jouw humor waren de vergaderingen toch wat saaier geweest. Ik wil je ook bedanken om mijn proefschrift te willen beoordelen.

Canım ciğerim annem ve babam, sevgili Ayhan abim ve Sibel yengem, biricik ablalarım Beyhan ve Perihan, saygıdeğer enişlerim Bahri ve Alparslan ve gözlerinden öptüğüm bütün yeğenlerim. Hepinizi çok seviyorum. Çok sağolun.

Aşkım benim. Bu doktora yolculuğumun en zorlu senesinde bana eşlik etmek sana kismetmiş. Bu yol ne kadar zor olsada, manevi manada en büyük desteği senden aldım. Herşey için çok çok sağol schat. Sen kalbimdesin ve inşallah hep orda kalacaksın, anlıyon maat.

Simon, jij verdient een heel speciale dank. Je hebt niet alleen vier jaren lang mij vergezeld op kantoor, maar je hebt me ook altijd bijgestaan bij de moeilijkste momenten. Je was er voor mij toen ik het allemaal even niet meer zag zitten. Simon, mijn vriend, hoe zeg je nu in het Engels *'duizend maal dank u'?*

Katrien, uw bijdrage bij het ontstaan van dit proefschrift kan moeilijk overschat worden. Jij was immers de heldin van de dataverzameling, vaak ook een inspiratiebron en op het einde ook de taaleditor. *Muchas Gracias!*

Dries, *giggidy.* Ik ben je zowel als collega, maar vooral als vriend, heel dankbaar. Ik bewaar goede herinneringen aan onze momenten. Ik hoop dat naast Elvis ook onze vriendschap blijft bestaan. *Adapter lan.*

Jannick, heb je het gehoord? Volgens de nieuwste analyses blijkt *bird* ≥ *word !!!* Je bent trouwens de verdienstelijke medeauteur van het tweede hoofdstuk van dit proefschrift. Dank u wel, Jannick.

Dimitri, merci voor de koffiemomenten, safkes en discussies die zeker hun positieve invloed hebben gehad op mijn werk. Ik wens je ook veel geluk en inspiratie in de VS.

Klaartje, ben Amerikaya gitmeden kesinlikle bir eğlence daha yapmalısın. Yaptığın yemekler içinde eline sağlık. Herşey için çok sağol.

Mijn collega's Hans (zoek de heteroscedasticiteit), Lore (toekomstige medeauteur), Jèèèf, Elien (zomaar), Nele (cox side of life), Charlotte (sociologische autoriteit in spe), Pieter-Paul

(kameraadschappelijk), Nina (voor de dino's), Sarah (voor die ene correctie op het einde), Saskia (om vijf uur), Carine (zoetje), Eva & Bruno (voor praktische ondersteuning). Jullie vormen een prachtig team van collega's en ik wil jullie allemaal bedanken voor alle toffe momenten.

Nesrin & Fatmagül, bir kahvenin 40 yıllık hatırı varsa, sizin hatırınız ohooooo, ödenemez! Ik ben jullie ook enorm dankbaar voor het uittypen van de interviews. Jullie hebben een schitterend werk gedaan! Elinize sağlık!

Erol, bu doktora varya? [heee] Sana girsin. Yanlış anlama maat, ik wil gewoon zeggen dat ik hoop dat je zo snel mogelijk je doctoraat afwerkt. Ik heb je meer nodig dan Cambridge maat.

Dag Lore, ik wil je heel oprecht bedanken voor onze discussies, ze hebben zeker hun invloed gehad op mijn proefschrift. En ook duizend maal dank voor de taalcorrecties!

Maarten, vier ja na mijn licentiaatsthesis ben ik nog steeds overtuigd dat deze eeuw Hermansiaans kan worden. Voorwaarde is wel dat je je genialiteit deelt met je medemens en niet wacht tot het perfect is. Niets is perfect, behalve onze vriendschap! Bedankt voor jarenlange kritische steun.

Selam aan Fatih. Je hebt wonderen verricht tijdens de dataverzameling. Merci kardeş! Inşallah schrijf je ook zo snel mogelijk je thesis. Je weet me te vinden als ik je kan helpen.

Anton & Toon. Ongeveer tien jaar na datum, nog steeds anafoor represent! Maar ondertussen is het hier wel *Post* Dr. Dre, cuz ama mo'fo p-h-d! Dank u broeders! Kom me zeker bezoeken in *West-Side!*

Laure, Evelyn & Daan: jullie zijn de tofste huisgenootjes die ik me kon inbeelden. Ik ga jullie missen in L.A. En Daan, uw statistische consultancy heeft me honderden uren werk bespaard. Deze bespaarde uren wil ik graag met u doorbrengen. Uw *lan* is u eeuwig dankbaar.

En *last but not least*, iedereen die ik door het toedoen van het lot vergeten ben:

Dank u

Teşekkürler

Thank you

Merci

Algemene inleiding

1. Ten geleide

Het voorliggend proefschrift is het resultaat van ongeveer vier jaar intensief onderzoek naar de impact van schoolsegregatie in het lager onderwijs in Vlaanderen. Dit onderzoek werd gefinancierd door het Fonds Wetenschappelijk Onderzoek – Vlaanderen (FWO-project G.040908). Het proefschrift is geschreven op basis van zes artikels, de zes hoofdstukken die volgen op dit algemeen inleidend hoofdstuk, die de *body* vormen van het proefschrift. Deze artikels zijn allen verzonden naar internationale tijdschriften die opgenomen zijn in *Social Science Citation Index* van de *Web Of Science.* Drie van deze artikels zijn gepubliceerd en drie artikels bevinden zich momenteel in het peer-review proces. Met uitzondering van het derde hoofdstuk zijn alle artikels tevens voorgesteld tijdens internationale conferenties (zie lijst hieronder). De zes artikels/hoofdstukken zijn:

Hoofdstuk I:
Ethnic School Context And The National And Sub-National Identifications Of Pupils

- Gepubliceerd in *Ethnic and Racial Studies* (2011).
- Gepresenteerd tijdens *XVII ISA World Congress of Sociology,* Gothenburg (2010).

Hoofdstuk II:
Ethnic School Composition And Peer Victimization: A Focus On The Interethnic School Climate

- Gepubliceerd in *International Journal of Intercultural Relations* (2011)
- Gepresenteerd tijdens *European Conference on Educational Research (ECER),* Helsinki (2010)

Hoofdstuk III:
Ethnic School Segregation And Self-Esteem: The Role Of Teacher-Pupil Relationships

- In review in *Urban Education*

Hoofdstuk IV:
Why Does The Ethnic And Socio-Economic Composition Of Schools Influence Math Achievement? The Role Of Sense Of Futility And Futility Culture

- Online gepubliceerd in *European Sociological Review* (2011)
- Gepresenteerd tijdens *Onderwijs Research Dagen (ORD),* Enschede (2010)

Hoofdstuk V:
School segregation and academic achievement: a mixed-method study on the role of self-fulfilling prophecies

- In review in *Teachers College Record*
- Gepresenteerd tijdens *10th Conference of the European Sociological Association (ESA),* Geneve (2011)

Hoofdstuk VI:
The perceived and actual consequences of ethnic composition: a mixed-method application of the social hypochondria theory in schools

- In review in *British Journal of Sociology*
- Gepresenteerd tijdens *Dag Van De Sociologie (DvdS),* Gent (2011)

Een proefschrift op basis van artikels is qua vorm anders dan een klassiek proefschrift in boekvorm. Een voordeel van deze werkwijze is dat de artikels een *peer-review* proces doorstaan en dus moeten voeldoen aan internationale kwaliteitsnormen die gelden binnen het wetenschapsbedrijf. Het nadeel is echter dat er zelfs in een uitgebreid artikel – dat doorgaans bestaat uit 7000 à 10000 woorden – weinig ruimte is om het breder kader van het onderzoek te beschrijven. Daarom maken we gebruik van dit algemeen inleidend hoofdstuk om informatie te geven die we niet voldoende konden integreren in de artikels zelf. We beginnen in het volgende deelhoofdstuk met de algemene probleem- en doelstelling van het doctoraatsonderzoek. Daarna zullen we in het derde deelhoofdstuk het proefschrift positioneren tegenover de bestaande onderzoekstradities om te komen tot een geïntegreerd theoretisch model. Meer specifiek zullen we argumenteren dat dit geïntegreerd model drie onderzoekstradities integreert, namelijk het schooleffectiviteitsonderzoek, het onderzoek naar schoolsegregatie en het onderzoek naar leerling-leerkracht interacties. In het vierde deelhoofdstuk beschrijven we hoe we de data hebben verzameld die we nodig hadden voor het realiseren van het onderzoek. Vervolgens beschrijven we in deelhoofdstuk vijf hoe we de centrale determinanten, uitkomsten en procesvariabelen hebben geoperationaliseerd en we geven de beschrijvende statistieken ervan. Tot slot, geven we in deelhoofdstuk zes uitleg over het onderzoeksdesign dat we zullen gebruiken.

2. Probleemstelling en doelstelling

Schoolsegregatie, zoals het vorm krijgt in de samenstelling van het leerlingenpubliek naar etnische en sociaaleconomische kenmerken, is een thema dat de laatste jaren sterk aanwezig is in het denken over het onderwijs in Vlaanderen (Sierens, Mahieu & Nouwen, 2011). Net zoals in de rest van de wereld heeft de notie van segregatie ook hier een pejoratieve bijklank. Het mag dan niemand verwonderen dat Vlaanderen sinds twee decennia eveneens een *de*segregatiebeleid kent. Dit heeft zijn kiemen in de *Non-discriminatieverklaring* en is verder uitgewerkt in het *Gelijke Onderwijskansen beleid* (Sierens, Mahieu & Nouwen, 2011). Echter, *waarom* bepaalde leerlingencomposities problematisch zijn en *waarom* er überhaupt nood is aan 'gemengde' scholen, aan desegregatie dus, is allesbehalve duidelijk. In Vlaanderen is er immers weinig gekend over de gevolgen van de leerlingencompositie op de cognitieve of non-cognitieve aspecten van de leerlingen (Desmedt & Nicaise, 2006; Van Houtte & Stevens, 2009). We weten uit voorgaande studies wel dat de *individuele* etnische en sociaaleconomische achtergrond (SES) van een leerling samenhangt met zijn onderwijsprestaties, maar wat het netto-effect van etnische en SES *samenstelling* van het leerlingenpubliek betreft, zijn de onderzoeksgegevens schaars. We weten bijvoorbeeld dat een allochtone leerling uit een arbeidersgezin gemiddeld genomen slechter presteert dan een etnisch Vlaamse leerling uit een welgesteld gezin (Duquet, Glorieux, Laurijssen & Van Dorsselaer, 2006; Lacante, Almaci, Van Esbroeck, Lens & De Metsenaere, 2007), maar we weten niet of die leerling beter zou presteren in een 'zwarte' concentratieschool, dan wel in een school met voornamelijk 'witte' middenklasse leerlingen. Het publieke discours suggereert voortdurend het voordeel van 'witte' of 'gemengde' scholen, maar wij kennen weinig studies die dat kunnen onderbouwen, althans wat Vlaanderen betreft. Kortom, het desegregatiebeleid en het publieke discours over schoolsegregatie steunt eerder op *common sense* veronderstellingen, dan op wetenschappelijke bevindingen. Met dit doctoraatsonderzoek willen we daarom een aantal wetenschappelijke bevindingen in het debat inbrengen.

In tegenstelling tot Vlaanderen is er internationaal gezien veel meer bekend over de consequenties van etnische en SES schoolcompositie (voor reviews en meta-analyses zie Stephan, 1978; Braddock & Eitle, 2004; Driessen, 2007; van Ewijk & Sleegers, 2010a, 2010b). Sinds de jaren vijftig van de vorige eeuw hebben tal van studies – voornamelijk uit de Verenigde Staten (VS) – de impact van schoolcompositie onderzocht. Echter, ook het internationaal onderzoek rond segregatie heeft zijn

beperkingen. Ten eerste hebben de bestaande studies zich voornamelijk gericht op de cognitieve uitkomsten, met name, op de schoolprestaties van de leerlingen. Over de impact van schoolcompositie op non-cognitieve uitkomsten is er veel minder bekend (Van Houtte & Stevens, 2009; Karsten, 2009). In deze doctoraatstudie willen we daarom ook de effecten van schoolcompositie op non-cognitieve uitkomsten, met name, op het zelfbeeld en het schoolwelbevinden van de leerlingen nagaan. Een tweede, en wel de meest cruciale tekortkoming van het bestaand internationaal onderzoek, is de quasi volledige afwezigheid van *verklaringen* voor de gevonden effecten van schoolcomposities. Hoewel deze kritiek al decennia herhaald wordt (zie bijvoorbeeld Jencks & Mayer, 1990), zijn de studies die op zoek gaan naar de verklaringen voor de compositie-effecten zeer schaars (zie Karsten, 2009). Ofwel worden theoretische verklaringen naar voren geschoven die niet empirisch worden getest, ofwel worden procesvariabelen in de modellen opgenomen zonder enige theoretische ondersteuning. Met andere woorden, de vraag *waarom* etnische en SES compositie van de school een invloed heeft, wordt zelden beantwoord. Nochtans is het openen van deze *black-box* vanuit een fundamenteel wetenschappelijk perspectief van kapitaal belang. Het bestuderen van de intermediaire processen tussen compositiekenmerken en leerlingen is immers *de* sleutel tot verdere kennisaccumulatie en theorievorming. Ook vanuit het beleidsperspectief is het nagaan van de verklaringen voor de effecten belangrijk: indien we kunnen achterhalen *waarom* bepaalde composities een negatief effect uitoefenen, kunnen beleidsmakers focussen op deze processen zodat er in alle scholen kwaliteitsvol onderwijs geleverd kan worden. De belangrijkste doelstelling van het voorliggend proefschrift is dan ook het openen van deze *black-box* van schoolsegregatie: de focus ligt op intermediaire processen die de relatie tussen schoolcompositie en leerlingenuitkomsten kunnen verhelderen. Deze intermediaire processen worden voornamelijk op basis van kwantitatieve data in kaart gebracht en aangevuld met kwalitatieve data.

De hoofddoelstelling van het onderzoek kan worden samengevat als *een mixed-method studie naar de gevolgen van sociaaleconomische en etnische schoolcompositie op de schoolprestaties, het zelfbeeld en het schoolwelbevinden van de leerlingen in het Vlaamse lager onderwijs met bijzondere aandacht voor intermediaire processen.*

3. Het geïntegreerd theoretisch model

De centrale focus van het voorliggend proefschrift zijn de intermediaire processen die het verband tussen de schoolcompositie en de leerlingenuitkomsten kunnen verhelderen. We moeten een geïntegreerd theoretisch model ontwikkelen dat ons in staat stelt om deze processen systematisch te kunnen bestuderen. Dit model zal ontwikkeld worden op basis van een integratie van drie onderzoekstradities, namelijk het schooleffectiviteitsonderzoek, het onderzoek naar schoolsegregatie en het onderzoek naar de leerling-leerkrachten interacties. In dit deelhoofdstuk geven we een korte introductie tot elke onderzoekstraditie, waarbij we vooral focussen op de verklaringsmechanismen die ze aanreiken. Deze verklaringsmechanismen vormen immers de voornaamste bouwstenen van het geïntegreerd model dat we zullen voorstellen. Bij elke onderzoekstraditie zullen we niet alle, maar de voor dit onderzoek meest relevante studies bespreken. Uiteraard bespreken we ook de belangrijke algemene onderzoeksresultaten die we voornamelijk zullen afleiden uit reviews en meta-analyses. Wat de studies betreft die in Vlaanderen zijn uitgevoerd, zullen we trachten om zo exhaustief mogelijk te zijn.

3.1. Schooleffectiviteitsonderzoek

3.1.1. Ontstaansgeschiedenis

Binnen het schooleffectiviteitsonderzoek, *'School Effectiveness Research'* (SER), kunnen we in navolging van Reynolds, Teddlie, Creemers, Scheerens en Townsend (2000) drie pijlers onderscheiden (zie ook: Scheerens & Bosker, 1997; Van Houtte, 2002; De Maeyer & Rymenans, 2004). De eerste pijler is het schooleffectenonderzoek (*school effects research*), dat vooral gericht is op het identificeren van schoolkenmerken die samenhangen met bepaalde uitkomsten op basis van onderzoek in een groot aantal scholen. De tweede pijler is het effectieve scholenonderzoek (*effective schools research*) dat focust op het identificeren van kenmerken die maken dat bepaalde scholen effectief zijn door case studies (meestal outliers) te bestuderen (bijvoorbeeld een school in een arme buurt waar de leerlingen goed presteren). Een derde pijler is het schoolverbeteringsonderzoek (*school improvement research*) dat gericht is op het creëren van effectieve scholen door het bestuderen van schoolverbeteringsprogramma's.

Voor het voorliggend doctoraatsproefschrift is vooral de eerste pijler van SER, het schooleffectenonderzoek, van belang. Om de historische gronden van

schooleffectenonderzoek aan te duiden, verwijst men meestal naar het klassieke rapport van James Coleman en zijn collega's, het zogenaamde *'Coleman Report'* (Coleman e.a., 1966). Dit is op zijn minst paradoxaal te noemen want één van de meest bekende conclusies van het rapport is dat de scholen op zich bitter weinig effect hebben op leerlingen. Schoolkenmerken zoals beschikbare financiële middelen, faciliteiten van de scholen en de kenmerken van het leerkrachtenkorps, bleken weinig impact te hebben op de prestaties van leerlingen. Wat er wel toedeed, bleek de individuele sociaaleconomische achtergrond van de leerlingen en dus de sociale stratificatie die reeds *buiten de school*, in de samenleving bestaat. Als een kenmerk op schoolniveau een invloed had, dan was dit volgens Coleman en collega's de SES-compositie van de school.

> "The social composition of the student body is more highly related to achievement, independent of the student's own social background, than is any school factor." (p.325).

Met een meer verfijnde methodologie kwam Christopher Jencks (1972) tot een gelijkaardige conclusie, maar zelfs de impact van de SES samenstelling van de school werd in dit onderzoek genuanceerd. De tijdsgeest van het onderwijsonderzoek van de jaren zeventig werd gekenmerkt door wat later 'sociologisch pessimisme' zou heten. Basil Bernstein's bekende werk `*School cannot compensate for society'* (Bernstein, 1970) en de reproductiethese van Bourdieu en Passeron (1970) – die stelden dat scholen eerder passieve instituties zijn die sociale ongelijkheid reproduceren – moeten binnen deze tijdsgeest worden gezien.

Het hedendaagse SER is ontstaan als een reactie tegen dit 'sociologisch pessimisme'. Twee invloedrijke werken die eind de jaren zeventig werden geschreven, worden hierbij als basiswerken geciteerd: in het Verenigd Koninkrijk (VK) *'Fifteen thousand hours'* van Rutter, Maughan, Mortimore en Ouston (1979) en in de Verenigde Staten (VS) *'Schools can make a difference'* van Brookover, Beady, Flood, Schweitzer en Wisenbaker (1979). De naam van dit laatste boek werd vanaf de jaren tachtig het credo van de SER: scholen zouden wel degelijk een verschil kunnen maken, en dus, zo men wil, compenseren voor de samenleving.

Kenmerkend voor zulk onderzoek was dat ze in tegenstelling tot de vroegere studies gingen kijken wat er zich *binnen* de scholen afspeelt. Terwijl de studie van Coleman de impact van de inputkenmerken van de school onderzocht (bijvoorbeeld gespendeerd geld per leerling), focusten deze studies op wat er zich afspeelde tussen

de leerlingen, leerkrachten en directies. Van het input-output-model van de jaren zestig werd er afgestapt en de focus verschoof nu naar de *onderwijsprocessen*. De overtuiging was immers dat indien effectieve schoolkenmerken en praktijken werden overgedragen naar andere scholen, alle scholen effectieve scholen zouden worden (Reynolds et al., 2000; Van Houtte, 2002). Zo wezen Rutter e.a. (1979) op wat ze het '*ethos*' van de school noemden. In de Verenigde Staten bestudeerden Brookover en collega's (1979) onder de noemer van '*schoolklimaat*' ook een aantal onderwijsprocessen. Naast de noties van schoolklimaat en schoolethos, kreeg het concept van *'schoolcultuur'* ingang in SER om onderwijsprocessen binnen scholen te bestuderen (zie paragraaf 3.1.4 voor een verdere uiteenzetting over de noties van schoolcultuur en schoolklimaat).

3.1.2. SER voorbij schoolcompositie?

Het feit dat de focus vanaf eind van de jaren zeventig werd gelegd op onderwijsprocessen had ook een prijskaartje: de 'contextvariabelen' en factoren waarop scholen geen 'grip' hebben, zoals de SES en etnische samenstelling, kregen amper nog aandacht. Schoolcompositie werd ofwel niet meer opgenomen in de modellen, ofwel enkel toegevoegd als controlevariabele waar men verder niets meer mee deed (voor kritieken: Angus, 1993; Riddel, Brown & Duffield, 1998; Rea & Weiner, 1998; Thrupp, 1999; Thrupp, 2001). Illustratief voor deze denkwijze zijn de woorden van de vooraanstaande SER onderzoeker en theoreticus Jaap Scheerens (1992):

> "High numbers of disadvantaged pupils and ethnic minorities push down the performance of the entire pupil population. Because the central concern is with the 'construction' of effective schools no further attention is given to these contextual characteristics." (p. 93)

Naast de focus op schoolprocessen die zouden moeten uitmonden in schoolverbetering zijn er nog minstens twee redenen waarom SER volgens ons weinig belangstelling had voor schoolcompositie: (1) de nauwe banden van SER met de neoliberale politieke agenda en (2) het theoretisch deficit van SER. We bespreken ze achtereenvolgens.

Ondanks de claim van de voorstanders van SER, beargumenteren verschillende auteurs dat SER politiek gezien geen neutrale positie inneemt, maar nauw aansluit bij de neoliberale, conservatieve, rechtse ideologieën en regeringen (Angus, 1993; Thrupp, 1999; Hatcher & Hirtt, 1999; Wrigley, 2003, 2004). Paradoxaal

genoeg heeft dit te maken met de oorspronkelijk progressieve gedachte van SER: met juiste ingrepen in de onderwijsprocessen moeten *alle* schollen effectief kunnen zijn, ook die in lage-SES contexten. De boodschap dat scholen ook zonder grote sociale hervormingen, zonder desegregatie en dus zonder extra financiële middelen het verschil zouden kunnen maken, klinkt als muziek in de oren van de rechtse regeringen, die in de jaren tachtig zware besparingen willen doorvoeren in het budget van het publiek onderwijs. Het is dan volgens Thrupp (1999) ook niet toevallig dat SER wereldwijd heeft geboomd tijdens neoliberale beleid: in de Verenigde Staten onder Ronald Reagan, in het Verenigd Koninkrijk onder Margaret Thatcher en in Nieuw-Zeeland onder Rouger Douglas. Het is natuurlijk de vraag of de boodschap van SER niet eerder is *mis*bruikt door rechtse regeringen en of de SER onderzoekers dat niet hadden moeten voorzien (voor een debat hierover zie Thrupp, 2001; Teddlie & Reynolds, 2001). Feit blijft dat SER – al dan niet buiten haar wil – een wetenschappelijke legitimatie heeft verleend aan neoliberale politieke agenda's die scholen verantwoordelijk en aansprakelijk willen stellen voor hun effectiviteit, waarbij er weinig of geen aandacht wordt gegeven aan de sociaaleconomische en etnische context van deze scholen. Een voorbeeld hiervan is het *league tables* systeem in Engeland waarbij scholen worden vergeleken met betrekking tot hun 'effectiviteit' op basis van de gemiddelde prestaties van leerlingen, zonder rekening te houden met de SES en etnische compositie van de scholen (Riddel e.a., 1998).

Een tweede reden waarom SER weinig aandacht heeft voor de sociale en etnische compositie van scholen, is gerelateerd aan een bekende kritiek op SER: het theoretisch deficit dat de onderzoekstraditie kent. Hoewel deze kritiek allesbehalve nieuw is, blijft op theorie gesteund onderzoek en theorievorming een pijnpunt binnen SER (Coe & Fitz-Gibbon, 1998; Creemers, Scheerens & Reynolds, 2000; Thrupp, 2001; Luyten, Visscher & Witziers, 2005). Zonder theoretische gronden worden variabelen op basis van *common sense* in een model geplaatst en wordt er naar correlaties 'gevist'. Variabelen die geen significant effect uitoefenen, maar die heel belangrijk kunnen zijn omdat ze een indirect effect uitoefenen, krijgen hierdoor weinig aandacht. We zouden bijvoorbeeld zonder enige theorie kunnen testen of een hoge concentratie van allochtone leerlingen (schoolcompositie) en de percepties van de leerkrachten (procesvariabele) een invloed uitoefenen op de prestaties van leerlingen. Wanneer uit de resultaten van een multivariate analyse blijkt dat enkel de percepties van leerkrachten een significant effect uitoefenen, zouden we kunnen besluiten dat schoolcompositie er niet toe doet. Echter, hierdoor verliezen we uit het oog dat de

impact van schoolcompositie indirect kan lopen: schoolcompositie kan een impact hebben op de percepties van de leerkrachten, die op hun beurt een invloed kunnen hebben op de onderwijsprestaties van de leerlingen. Kortom, indien we een theoretische verwachting hebben over een mogelijke indirecte relatie, kunnen we de invloed van schoolcompositie meer in detail onderzoeken.

3.1.3. Recente ontwikkelingen en voortdurende tekortkomingen

Meer recentelijk zien we dat binnen SER meer aandacht wordt geschonken aan compositiekenmerken. Wanneer we bijvoorbeeld de publicaties bekijken die het laatste decennium verschenen zijn in het vooraanstaand SER tijdschrift '*School Effectiveness and School Improvement'* (SESI), zien we steeds meer publicaties opduiken die rekening houden met compositiekenmerken (*in Nieuw-Zeeland*: Harker & Tymms, 2004; *in de Verenigde Staten*: Palardy, 2008; *in het Verenigd Koninkrijk* : Nash, 2003*; in Nederland:* Peetsma et al., 2006; *in Argentinië*: Cervinin, 2009; *in Vlaanderen*: Opdenakker et al., 2002; Opdenakker & Van Damme, 2006; Van Landeghem et al., 2002; *internationaal*: Maslowski, Scheerens & Luyten, 2007). Uit deze studies bleek telkens dat een hogere SES-compositie samengaat met hogere onderwijsprestaties, zelfs na controle voor individuele achtergrondkenmerken. De effecten van de etnische compositie zijn echter slechts uitzonderlijk onderzocht. Zo vonden Peetsma en collega's (2006) dat een hoger aandeel van niet westerse allochtone leerlingen in Nederlandse schoolklassen voornamelijk een *positief* effect heeft op de wiskundeprestaties van de allochtone leerlingen. Toch neigen de meeste van deze studies de significante effecten van schoolcompositie sterk te relativeren, waarbij er meestal wordt verwezen naar twee publicaties die eveneens verschenen zijn in SESI, namelijk Nash (2003) en Harker en Tymms (2004). Deze twee werken trekken de 'echtheid' van gevonden effecten sterk in twijfel, vooral omwille van methodologische problemen. Zo argumenteren Harker en Tymms (2004) dat een belangrijk deel van de compositiekenmerken toe te schrijven zijn aan outliers in de data en Nash (2003) stelt dat selectie-effecten wellicht verantwoordelijk zijn voor de gevonden effecten.

Drie belangrijke kanttekeningen dienen geplaatst te worden bij deze recente SER studies die in zekere mate rekening houden met schoolcompositie. Een eerste belangrijke punt van kritiek is dat de compositievariabelen in de meeste van deze SER studies als *controlevariabele* wordt behandeld, dat wil zeggen,

compositiekenmerken worden toegevoegd in de modellen nadat de procesvariabelen en leerlingniveau-variabelen reeds in het model zijn opgenomen (zie bijvoorbeeld Opdenakker & Van Damme, 2001; Peetsma et al., 2006; Maslowski et al., 2007). De effecten van de compositiekenmerken en de verklaringen hiervoor zijn immers zelden de primaire onderzoeksvragen van deze SER studies die vooral geïnteresseerd zijn in wat de effecten zijn van de procesvariabelen, *na* het controleren voor compositiekenmerken. Echter, vanuit een theoretisch oogpunt is het veel aannemelijker dat compositiekenmerken causaal voorafgaan aan procesvariabelen, dan het omgekeerde (zie ook Thrupp, 1999). Hierdoor kampen deze studies methodologisch gezien met een '*overcontrol bias*' (zie ook Goldsmith, 2010, 2011): men onderschat de effecten van de compositievariabelen door de procesvariabelen eerder dan (of gelijktijdig met) compositiekenmerken in de modellen te steken, terwijl compositievariabelen causaal gezien voorafgaan aan procesvariabelen.

Een tweede tekortkoming van deze studies is dat ze bijna allemaal de effecten op *cognitieve* uitkomsten bestuderen, terwijl non-cognitieve uitkomsten weinig aandacht krijgen. Een Vlaamse studie (Van Landeghem et al., 2002) en een Nederlandse studie (Peetsma et al., 2006) zijn de uitzonderingen op de regel: Van Landeghem en collega's (2002) hebben gevonden dat een viertal non-cognitieve uitkomsten (academisch zelfconcept, het zich thuis voelen op school, sociale integratie in de klas, en de mate waarin leerling zich academisch inzetten) significant varieert naargelang de school, hoewel de mate van variantie veel minder uitgesproken is dan bij cognitieve uitkomsten. De auteurs stellen dat de variantie op schoolniveau met betrekking tot deze non-cognitieve uitkomsten deels verklaard kan worden door compositiekenmerken. Echter op basis van de gepresenteerde resultaten konden we niet nagaan wat de effectgrootte of het teken is van de SES of de etnische compositie. Peetsma en collega's (2006) vonden dat academisch zelfconcept niet significant varieerde op schoolklasniveau (wat in hun analyse samenviel met schoolniveau) en dat de compositiekenmerken geen invloed hadden op het welbevinden van de leerlingen.

Een derde belangrijke beperking van de (kwantitatieve) SER studies is de afwezigheid van de rol van de leerkracht met betrekking tot de impact van schoolcompositie (zie ook Van Houtte, 2011). Daarom worden de effecten van compositiekenmerken vaak simpelweg '*peer-effects*' genoemd, wellicht omdat men ervan uitgaat dat compositie-effecten steeds met leerlingen en hun onderlinge interacties te maken hebben. Desalniettemin kunnen de overtuigingen en

verwachtingen van de leerkrachten eveneens beïnvloed worden door de compositiekenmerken van de scholen en deze overtuigingen en verwachtingen kunnen op hun beurt een belangrijke impact uitoefenen op de leerlingen (zie paragraaf 3.3.3). Deze drie hiaten in de SER studies, samen met het theoretisch deficit waarmee SER kampt, kunnen ons inziens opgevuld worden door de inzichten van twee andere onderzoekstradities, namelijk het onderzoek naar schoolsegregatie (zie paragraaf 3.2) en naar leerling-leerkracht interacties (zie paragraaf 3.3).

3.1.4. Verklaringsmechanisme: schoolklimaat en schoolcultuur

Zoals hierboven kort aangehaald, worden de concepten 'schoolklimaat' en schoolcultuur' in de SER studies gehanteerd om de processen die zich binnen de scholen afspelen aan te duiden. Aangezien een van de belangrijkste doelstellingen van het voorliggend onderzoek het verklaren van de effecten van compositiekenmerken is, zijn de noties van schoolklimaat en schoolcultuur de belangrijkste bijdragen van de SER literatuur tot het voorliggend onderzoek. Daarom lichten we deze begrippen nader toe, waarbij we vooral gebruik maken van de theoretische uiteenzetting van Van Houtte (2005).

De notie van schoolklimaat is ontstaan in de jaren zeventig (zie Brookover et al., 1979) en binnen SER studies is het nog steeds veel meer in gebruik dan de notie schoolcultuur (zie bijvoorbeeld recente SER studies die de notie van schoolklimaat hanteren Modin & Ostberg, 2009; Buyse, Verschueren, Verachtert & Van Damme, 2009; Marks, 2010). Het concept van schoolcultuur is veel recenter geïntroduceerd en is afgeleid van het concept van organisatiecultuur (zie Schein, 1990). Omdat beide noties vaak door elkaar werden/worden gebruikt en deze situatie voor onduidelijkheden zorgt, hebben Van Houtte (2005) en Schoen en Teddlie (2008) opgeroepen tot conceptuele duidelijkheid. Analoog aan de definities die men binnen de organisatiekunde geeft aan de notie van cultuur (zie Schein, 1990), definieert Van Houtte schoolcultuur als *gedeelde opvattingen* binnen de school. Deze opvattingen kunnen gedeeld zijn door de leerlingen (de leerlingencultuur) of leerkrachten (de leerkrachtencultuur). Bovendien dienen deze opvattingen altijd te verwijzen naar specifieke onderwerpen. Bijvoorbeeld, de gedeelde opvattingen van de leerkrachten over academische doelstellingen worden geconceptualiseerd als academische leerkrachtencultuur. De notie van schoolcultuur kan dus beschouwd worden als een verzamelterm voor een veelheid aan specifieke leerlingen en leerkrachtenculturen.

Van Houtte (2005) argumenteert dat schoolcultuur als een onderdeel beschouwd kan worden van het schoolklimaat en dat het schoolklimaat verwijst naar het geheel van institutionele processen binnen de school waaronder sociale relaties en gangbare praktijken (zie ook Tagiuri, 1968). In hun repliek op Van Houtte (2005) argumenteren Schoen en Teddlie (2008) het tegenovergestelde en stellen dat schoolklimaat als een onderdeel van de schoolcultuur beschouwd kan worden.

In dit proefschrift volgen we de conceptualisering van Van Houtte (2005): gedeelde opvattingen van de leerlingen en de leerkrachten bestuderen we onder de noemer van schoolcultuur. Wat de brede noemer van schoolklimaat betreft, beperken we ons echter tot het sociale relatieklimaat, dat wil zeggen, tot sociale relaties op schoolniveau tussen de leerlingen of tussen de leerlingen en de leerkrachten (zie paragraaf 3.4.2).

3.2. Onderzoek naar schoolsegregatie

3.2.1. Ontstaansgeschiedenis

Een tweede lijn van onderzoek naar de impact van schoolcompositie is de onderzoekstraditie naar de gevolgen van schoolsegregatie. De historische basis van deze onderzoekstraditie is de invloedrijke beslissing van het Hooggerechtshof van de Verenigde Staten, namelijk de *Brown vs. Board Of Education of Topeka* (1954) rechtszaak. De rechters beslisten unaniem dat de wettelijke segregatie tussen zwarte en witte leerlingen op openbare scholen afgeschaft moest worden, omdat deze apartheid in tegenstrijd was met de grondwet. Van de *'separate but equal'* doctrine die op het einde van de 19de eeuw tot stand kwam, werd er aldus overgestapt naar de '*separate is unequal* ' doctrine (Read, 1975; Wisdom, 1975). De beslissing van de rechters was echter niet enkel gebaseerd op juridische argumenten: de input van sociale wetenschappers was eveneens belangrijk. Zo argumenteerden prominente sociale wetenschappers in hun rapporten naar de rechtbank dat schoolsegregatie schadelijk was voor de academische prestaties, het zelfbeeld en de interetnische relaties van de leerlingen. Bovendien claimden deze wetenschappers dat schoolsegregatie schadelijk was voor beide groepen, zwarten én blanken (Zirkel & Cantour, 2004; Zirkel, 2005).

Vanaf de jaren vijftig werden er in de Verenigde Staten honderden studies verricht om de impact van schoolsegregatie en post-Brown desegregatiemaatregelen na te gaan, waarbij de etnische en SES-compositie van de scholen centraal stond (voor

overzichten zie St John, 1975; Stephan, 1978; Crain & Mahard, 1982; Orfield, 1983; Wells, 1995). Tot eind de jaren zeventig zien we methodologisch twee verschillende types van onderzoek. Enerzijds zijn er de quasi-exprimentele studies die aan de hand van pretest/posttest methoden de impact van veranderde schoolcompositie nagaan. Deze vorm van onderzoek is echter slechts mogelijk als er desegregatiemaatregelen worden genomen. Aangezien desegregatiemaatregelen vanaf de jaren tachtig steeds minder voorkomen (zie Orfield, 1983), zijn er nog weinig studies die deze methodologie hanteren. Anderzijds zien we steeds meer studies die op basis van data die verzameld zijn in tientallen scholen de statistische effecten van *de facto* schoolsegregatie nagaan, door de samenhang van schoolcomposities en uitkomsten te bestuderen. Mogelijke selectie-effecten worden hierbij geneutraliseerd door te controleren voor een set van controlevariabelen. De meeste hedendaagse segregatiestudies gebruiken deze methodologie (zie bijvoorbeeld Bankston & Caldas, 1996, 1998; Ryabov & Van Hook, 2007; Dronkers & Levels, 2007; Dronkers, 2010).

Op drie manieren onderscheiden deze segregatiestudies zich van de SER studies. Ten eerste, hoewel de segregatiestudies zelden procesvariabelen invoeren om de effecten van compositiekenmerken te verklaren, worden in die studies die *wel* procesvariabelen bestuderen, de compositievariabelen voorafgaand in de modellen toegevoegd dan procesvariabelen (zie bijvoorbeeld Rumberger & Palardy, 2005; Ryabov & Van Hook, 2007; Van Houtte & Stevens, 2010b). Zo vermijden deze studies een *overcontrol bias* die kenmerkend is voor de SER studies (zie paragraaf 3.1.3). Ten tweede, terwijl de SER studies een zeer beperkte aandacht hebben voor de etnische compositie van de scholen, focussen vele segregatiestudies wel heel sterk op de etnische compositie. Bovendien zien we in de meer recente segregatiestudies een bredere conceptualisering van de etnische compositie: er wordt een onderscheid gemaakt tussen enerzijds de etnische *concentratie/densiteit* van een school, die gemeten wordt op basis van de proportie of het percentage etnische minderheden, en anderzijds de etnische *diversiteit/heterogeniteit,* die gemeten wordt op basis van een diversiteitsindex (zie bijvoorbeeld Van Houtte & Stevens, 2009; Chan & Birman, 2009; Dronkers, 2010). Ten slotte, hoewel ook het leeuwendeel van de segregatiestudies focust op de cognitieve uitkomsten van de leerlingen, hebben de segregatiestudies ook een ruime aandacht gehad voor non-cognitieve uitkomsten. In wat volgt bespreken we achtereenvolgens een aantal studies die focussen op de effecten van schoolcompositie op cognitieve uitkomsten en daarna een aantal studies naar de effecten op het zelfbeeld, de interetnische relaties en het schoolwelbevinden.

3.2.2. Impact op cognitieve uitkomsten

Het onderzoek naar de impact van schoolsegregatie op de cognitieve uitkomsten van de leerlingen is vooral afkomstig uit de VS. De meeste van deze studies focussen op de gevolgen van de schoolcompositie op de onderwijsprestaties *(academic achievement,* zie bijvoorbeeld Bankston & Caldas, 1996, 1998; Caldas & Bankton, 1998; Rumberger & Palardy, 2005; Ryabov & Van Hook, 2007). In mindere mate bestuderen ze ook effecten op het behaalde opleidingsniveau *(educational attainment*, zie bijvoorbeeld Dawkins & Braddock, 1994; Goldsmith, 2009, 2011) en op het blijven zitten en school drop-out *(school failure,* zie bijvoorbeeld Guryan, 2004; Lee, 2004; Orfield, 2004). Meer recent zien we dat er ook in de Europese context meer onderzoek wordt verricht naar de gevolgen van schoolcompositie op de onderwijsprestaties (in Nederland: Driessen, 2002; in Frankrijk: Felouzis, 2003; Boado, 2007; in Noorwegen: Fekjaer & Birkelund, 2007; in VK: Lauder et al, 2008; in Zweden: Szulkin & Jonsson, 2007; in de Franstalige gemeenschap: Dumay & Dupriez, 2008; voor internationaal comparatieve studies: Dronkers & Levels, 2007; Dronkers, 2010). De studies die verricht zijn in Europa en in de VS hebben quasi zonder uitzondering dezelfde resultaten gevonden: de leerlingen die schoollopen in scholen met een hoger aandeel leerlingen uit sociaaleconomisch achteruitgestelde milieus halen slechtere onderwijsprestaties dan leerlingen in scholen met een hoger aandeel van leerlingen uit sociaaleconomisch welgestelde gezinnen. Een meta-analyse van Ewijk en Sleegers (2010a), maakt duidelijk dat de gestandaardiseerde effectgrootte van de SES-compositie gemiddeld 0.32 is. Met betrekking tot de etnische samenstelling van de scholen, is het moeilijker om een eenduidige conclusie te trekken (zie hieromtrent een tweede meta-analyse van van Ewijk & Sleegers, 2010b). Terwijl sommige auteurs negatieve effecten rapporteren van een hoger aandeel van etnische minderheden (bijvoorbeeld Bankston & Caldas, 1996, 1998; Caldas & Bankton, 1998; Driessen 2002), vinden andere auteurs geen negatieve invloed van de etnische minderheidsconcentratie in een school (bijvoorbeeld Fekjaer & Birkelund, 2007; Ryabov & Van Hook, 2007).

Zoals we in onze inleiding hebben aangehaald, is het verwonderlijk hoe weinig studies in Vlaanderen rechtstreeks focussen op de problematiek van etnische en sociaaleconomische segregatie. Twee recente werken in dit verband zijn de studies van Verhaeghe, Van Damme & Knipprath (2011) voor het lager onderwijs, en Jacobs, Rea & Teney (2009) voor het secundair onderwijs. Verhaeghe en collega's (2011) vinden dat de etnische en SES compositie (samengevoegd in de analyses) een invloed

uitoefent op de *initiële* onderwijsprestaties in een school: hoe hoger het aandeel laag-SES leerlingen waarvan de thuistaal niet-Nederlands, hoe lager de initiële onderwijsprestaties. De auteurs vinden echter dat de SES en etnische compositie van de scholen geen duidelijke invloed uitoefent op de *leerwinst* van de leerlingen. Ze argumenteren dat schoolcompositie er enkel toedoet met betrekking tot initiële onderwijsprestaties. Doordat in deze studie de SES en etnische compositie van de scholen geoperationaliseerd zijn op basis van een samengestelde compositievariabele, kan men niet nagaan wat de netto impact van elk van beide is. Voor het secundair onderwijs hebben Jacobs en collega's (2009) aan de hand van de PISA-gegevens de impact van de SES en etnische compositie op de wiskundecompetenties van de leerlingen nagegaan. De auteurs besluiten dat voor Vlaanderen zowel de SES-compositie als het aandeel immigranten een impact heeft op de prestaties van leerlingen: hoe hoger de SES-compositie en hoe lager het aandeel immigranten, hoe hoger de prestaties. De auteurs gebruiken deze gegevens om een pleidooi te houden voor desegregatie. Echter, het aandeel immigranten is zo laag in de PISA-dataset voor België ('nieuwkomers' N=161 en 'tweede generatie' N=171; ook een 60-tal Nederlanders behoren tot deze categorieën), dat we betwijfelen of men op basis van deze gegevens geldige uitspraken kan doen over de impact van etnische compositie. Bovendien lijkt het pleidooi voor desegregatie ons te voorbarig aangezien de auteurs geen enkele intermediaire relatie hebben onderzocht.

3.2.3. Impact op non-cognitieve uitkomsten

Zelfbeeld

Een tweede genre binnen het segregatieonderzoek heeft zich toegelegd op de impact van schoolcompositie op verschillende aspecten van het zelfbeeld. De invloedrijke *Brown v. Board Of Education* (1954) beslissing van het Amerikaanse Hooggerechtshof was immers niet enkel gemotiveerd op basis van de eventuele negatieve gevolgen van aparte scholen op de onderwijsprestaties, maar de rechters motiveerden hun beslissing ook door te verwijzen naar eventuele negatieve gevolgen van schoolsegregatie op het zelfbeeld van de leerlingen. Meer specifiek argumenteerden de rechters dat in gesegregeerde scholen zwarte leerlingen gestigmatiseerd werden en een lagere zelfwaardering *(self-esteem)* overhielden. Het zelfwaardering-argument, stond dus centraal voor de vroege voorstanders van een desegregatiebeleid (zie

Bankston & Zhou, 2002; Zirkel, 2005). Het empirische onderzoek vanaf de jaren zestig heeft echter steeds het tegenovergestelde gevonden. Namelijk, etnische minderheden en arbeidersklasse leerlingen bleken een *lagere* zelfwaardering en *lager* academisch zelfconcept te hebben in scholen met een hoger aandeel middenklasse en 'witte' leerlingen (Coleman et al, 1966; Rosenberg & Simmons, 1972; Drury, 1980; Powell, 1985; Gray-Little & Carels, 1997; voor reviews: Stephan, 1978; Gray-Litte & Hafdahl, 2000). Deze studies zijn bijna allemaal uitgevoerd in de VS en hanteren zelden multilevel-methodes. Een Nederlandse studie van Verkuyten en Thijs (2004) vormt de uitzondering. Verkuyten en Thijs (2004) hebben vastgesteld dat de etnische minderheidsconcentratie van een school enkel een invloed had op de autochtone leerlingen (hogere zelfwaardering in scholen met meer allochtonen), en niet gerelateerd was aan de zelfwaardering van allochtone leerlingen. Etnische diversiteit in een school, hoewel niet geoperationaliseerd op basis van een fractionele index, bleek bij geen van beide groepen significant effect uit te oefenen. In Vlaanderen zijn er, voor zover we weten, geen studies uitgevoerd die de effecten van schoolcompositie op de zelfwaardering hebben nagegaan.

Andere segregatiestudies naar het zelfbeeld hebben de gevolgen van schoolcompositie op de *aspiraties* van de leerlingen bestudeerd. Ook deze studies zijn vooral van de Verenigde Staten afkomstig (Hoelter, 1982; Dawkins, 1983; Yun & Kurlaender, 2004; Frost, 2007; Wells, 2010). De resultaten zijn desondanks nogal uiteenlopend. Sommige auteurs vinden dat een hogere concentratie van etnische minderheden samenhangt met lagere onderwijs- en arbeidsmarktaspiraties (Dawkins, 1983; Yun & Kurlaender, 2004), terwijl andere studies net het omgekeerde vinden (Hoelter, 1982; Frost, 2007). In een recente studie argumenteert Wells (2010) in dit verband dat vooral de gebruikte methodologie doorslaggevend is met betrekking tot gevonden resultaten. Voor het Vlaamse secundair onderwijs vinden Van Houtte en Stevens (2010b) dat de etnische minderheidsconcentratie in een school geen invloed heeft op de onderwijsaspiraties van autochtonen. Voor allochtonen geldt dat ze hogere onderwijsaspiraties hebben in scholen met een middelmatige etnische minderheidsconcentratie (tussen 20 a 50 procent allochtonen), dan in scholen met lage etnische minderheidsconcentratie (0 tot 20 procent) en hoge etnische minderheidsconcentratie (50 tot 100 procent). Een hogere SES-compositie bleek zowel voor allochtonen als autochtonen samen te hangen met hogere onderwijsaspiratie.

Een beperkt aantal segregatiestudies naar het zelfbeeld heeft gefocust op de effecten van schoolcompositie op de sociale identiteit van de leerlingen, meer specifiek

op hun etnische identificatie (Hutnik, 1991; Kinket & Verkuyten, 1999; Umana-Taylor, 2004). In het Verenigd Koninkrijk heeft Hutnik (1991) gevonden dat Zuid-Aziatische leerlingen zich sterker identificeerden met hun eigen etnische categorie in scholen met een hogere concentratie van etnische minderheden. Deze bevinding is in Nederland gerepliceerd door Kinket en Verkuyten (1999) voor Turkse leerlingen. In de Verenigde Staten vond Umana-Taylor (2004) het tegenovergestelde, namelijk dat Latino leerlingen een sterkere etnische identificatie hadden in scholen waar er een kleiner aandeel Latino leerlingen waren. In Vlaanderen zijn er, voor zover we weten, geen studies uitgevoerd die de effecten van schoolcompositie op de sociale identiteit van de leerlingen hebben bestudeerd.

Interetnische relaties

Een derde genre binnen het segregatieonderzoek heeft de gevolgen van schoolcompositie op de interetnische relaties tussen de leerlingen onderzocht. Deze studies hebben vooral de effecten van de etnische compositie op de mate van interetnische vriendschappen bestudeerd (voor overzichten zie Schofield, 1991, 2004). Hoewel het vanzelfsprekend lijkt dat scholen met een groter aandeel van etnische minderheden ook meer interetnische vriendschappen opleveren, blijkt dit empirisch gezien niet evident te zijn. Zo wijzen bepaalde auteurs erop dat er niet noodzakelijk meer interetnische vriendschappen zullen ontstaan in gemengde scholen indien de leerlingen daar enkel vrienden maken in de eigen etnische groep (Moody, 2001; Stearns, 2004). Toch bevestigt een meerderheid van de studies dat er meer interetnische vriendschappen gevormd worden in scholen met een hoger aandeel van out-group leerlingen en etnische diversiteit (bijvoorbeeld Hallinan & Smith, 1985; Joyner and Kao, 2000; Quillian, & Campbell, 2003; Hamm, Brown & Heck, 2005; Chan & Birman, 2009). Voor Vlaanderen hebben Van Houtte en Stevens (2009) gevonden dat de etnische compositie van de school vooral belangrijk was voor interetnische vriendschappen die de autochtone leerlingen ontwikkelen.

Schoolwelbevinden

Meer recent zien we dat een vierde genre van segregatieonderzoek focust op de gevolgen van schoolcompositie op aspecten van het schoolwelbevinden van de leerlingen. Zo zien we steeds meer studies die de impact van etnische compositiekenmerken op het pestgedrag (*bullying*) en het gepest worden

(*vicitimization)* nagaan (Hanish & Guerra, 2000; Juvonen, Nishina, & Graham, 2001, 2006; Verkuyten & Thijs, 2002; Graham, 2006; Vervoort, Scholte, & Overbeek, 2010). Er is echter geen consensus in welke mate en in welke richting de etnische concentratie en diversiteit een impact hebben op pesten of gepest worden. Ook zijn er quasi geen gegevens *waarom* de etnische schoolcompositie een effect uitoefent op het pestgedrag. In Vlaanderen zijn er, voor zover we weten, geen studies uitgevoerd die de effecten van schoolcompositie op de het pestgedrag of het gepest worden hebben nagegaan.

Een beperkt aandeel van de segregatiestudies naar het schoolwelbevinden heeft de impact van schoolcompositie op het gevoel van thuishoren van leerlingen *(sense of belonging)* onderzocht. Zo heeft Ma (2003) in Canada gevonden dat SES-compositie geen significante impact had op *sense of belonging*. De impact van etnische compositie is in deze studie echter niet nagegaan. In de VS hebben twee studies een positieve relatie gevonden tussen de proportie van de eigen etnische groep op schoolniveau en het gevoel van thuishoren van leerlingen (Johnson, Crosnoe & Elder, 2001; McNeely, Nonnemaker & Blum, 2002). Voor het Vlaamse secundair onderwijs vinden Van Houtte en Stevens (2009) geen effecten terug van schoolcompositie op *sense of belonging*.

3.2.4. Verklaringsmechanisme: peergroup-processen

In tegenstelling tot de SER studies, worden in de segregatiestudies wel diverse theorieën besproken om de verwachte effecten van compositiekenmerken te ondersteunen. Deze theorieën hebben betrekking op de processen die zich afspelen tussen de leerlingen, anders gesteld, op peergroup-processen. Toch krijgen deze theorieën zelden een empirische invulling in deze segregatiestudies: ze worden als theorieën geponeerd, maar zelden empirisch getoetst. Kortom, wat de intermediaire processen betreft, worden SER studies gekenmerkt door een *theoretisch deficit*, terwijl segregatiestudies kampen met een *empirisch deficit.* Dit empirisch deficit kan ons inziens opgevuld worden door de conceptuele inzichten die aangereikt worden door de twee andere onderzoekstradities, namelijk SER (zie paragraaf 3.1) en het onderzoek naar leerling-leerkracht interacties (zie paragraaf 3.3).

Normatieve en comparatieve referentiegroep theorieën

Verschillende peergroup-theorieën die voorkomen binnen de segregatiestudies kunnen ons inziens geplaatst worden binnen het brede kader van de referentiegroep theorie (Merton and Kitt, 1950; Kelley, 1952; Hyman & Singer, 1968). Volgens de referentiegroeptheorie kan een groep in een gegeven sociale context (bijvoorbeeld de peergroup op een school) functioneren als een *normatieve* referentiegroep of een *comparatieve* referentiegroep. Wanneer voor een individu een specifieke groep als een *normatieve* referentiegroep functioneert, dan neigt het individu ernaar om de normen van de referentiegroep over te nemen. Normatieve peergroup-processen impliceren dus dat individuen zich de normen van hun referentiegroep eigen maken. Wanneer de referentiegroep daarentegen functioneert als een *comparatieve* referentiegroep voor het individu, dan neigt het individu zich vooral te vergelijken met de referentiegroep. Bij dit vergelijkingsproces worden vooral de verschillen tussen de referentiegroep en het individu geaccentueerd. Omwille van de gepercipieerde contrasten zal het individu in eerste instantie geneigd zijn om zich af te zetten tegen de referentiegroep en de normen ervan. Wanneer het individu de referentiegroep als 'beter' of 'hoger' inschat, dan kan dit leiden tot wat Merton (1938) 'relatieve deprivatie' noemt : een individu voelt zich gedepriveerd in vergelijking tot de referentiegroep in de onmiddellijke sociale omgeving. Comparatieve peergroup-processen kunnen daarom ook een proces van polarisering met zich meebrengen.

Twee voorbeelden van *normatieve* referentiegroeptheorieën zijn de *sociaal kapitaal* theorie zoals gebruikt werd James Coleman (1988) en het structuur—dispositie—praktijk schema van Pierre Bourdieu (1977). De Colemaniaanse notie van sociaal kapitaal wordt meestal aangehaald met betrekking tot de impact van schoolcompositie op onderwijsprestaties (zie bijvoorbeeld Bankston & Caldas, 1998; Ryabov & Van Hook, 2007; Goldsmith, 2011). Deze auteurs argumenteren dat er minder sociaal kapitaal aanwezig is in scholen met een hogere concentratie van arbeidsklasse en etnische minderheid leerlingen, terwijl dat sociaal kapitaal ingebracht kan worden door de aanwezigheid van autochtone en middenklasse leerlingen. De sociale relaties tussen kinderen en ouders zouden immers beter zijn bij gezinnen van de autochtone middenklasse, vaak omdat ze ook intacte gezinnen vormen. Deze sociale relaties zouden ervoor zorgen dat autochtone middenklasse leerlingen normatief meer gericht zijn op schoolsucces. Indien etnische minderheid en arbeidersklasse leerlingen meer in contact zouden komen met de autochtone middenklasse leerlingen, zouden de proschool overtuigingen en gedragingen eveneens

de norm worden voor hen, wat zou leiden tot betere academische prestaties. Deze redenering werd in feite reeds in de jaren vijftig opgevoerd door Wilson (1959), daarna systematisch onderzocht in het Coleman rapport (1966) en eind de jaren tachtig omgevormd tot de sociaal kapitaal theorie (Coleman, 1988).

Het structuur—dispositie—praktijk schema (SDP) schema (Bourdieu, 1977) kan eveneens als een normatief peergroup-proces beschouwd worden waarmee de mogelijke effecten van schoolcompositiekenmerken op de onderwijsprestaties van de leerlingen gekaderd kunnen worden. Meer specifiek kan worden vooropgesteld dat de sociaaleconomische kenmerken van de peergroup (≈ sociale structuur), een invloed uitoefenen op bepaalde opvattingen van de leerlingen (≈ dispositie) en deze opvattingen op hun beurt een belangrijke invloed uitoefenen op de onderwijsprestaties (≈ praktijk). Wanneer de peergroup bestaat uit leerlingen uit welgestelde gezinnen, kan worden verwacht dat de leerlingen gesocialiseerd worden met middenklasse disposities, waarvan we weten dat ze meer gericht zijn op succes in het onderwijs. We stellen echter vast dat er heel weinig auteurs zijn die het Bourdieusiaans SDP-schema ook daadwerkelijk hanteren voor het verklaren van de effecten van schoolcompositie (voor een oproep om dat wel te doen, zie Thrupp, 1999). Nochtans biedt dit SDP schema een veel duidelijker theoretische kader dan het Colemaniaanse denkkader omdat het SDP schema veel helderder schetst welke variabelen een intermediaire rol kunnen spelen, namelijk disposities met betrekking tot het verwachte onderwijssucces voor de eigen sociale groep (zie ook Bourdieu & Passeron, 1970).

Twee *comparatieve* referentiegroeptheorieën die aangehaald worden om de mogelijke effecten van schoolcompositie te ondersteunen zijn de *frog-pond* theorie (Davis, 1966) en de *big-fish-little-pond* theorie (Marsh, 1987). Zowel de *frog-pond* als de *big-fish-little-pond* theorie zijn specifieke toepassingen van het hierboven omschreven relatieve deprivatie mechanisme (Merton, 1938), hoewel er accentverschuivingen zijn. In de originele formulering had de *frog-pond* theorie betrekking op de aspiraties van de leerlingen (Davis, 1966), terwijl de *big-fish-little-pond* theorie in eerste instantie geformuleerd is met betrekking tot het academisch zelfconcept van de leerlingen (Marsh, 1987). Echter, meer recent zien we dat onder de noemer van *frog-pond* theorieën verschillende auteurs zowel verwijzen naar het werk van Davis als naar dat van Marsh (zie bijvoorbeeld Frost, 2007; Crosnoe, 2009; Goldsmith, 2011). Beide theorieën hebben hun naam te danken aan de volgende metafoor : *'het is beter om een grote vis/kikker te zijn in een kleine vijver, dan een*

kleine vis/kikker in een grote vijver'. Met andere woorden, deze theorieën stellen dat leerlingen die objectief gezien academisch gelijkwaardig zijn, lagere aspiraties en lagere academische zelfconcepten zullen overhouden aan scholen waar hun peergroup academisch gezien sterker is. Gezien autochtonen en middenklasse leerlingen vaker beter scoren in het onderwijs, en als dusdanig worden gepercipieerd door hun medeleerlingen, verwacht men op basis van de *frog-pond* en *big-fish-little-pond* theorieën dat de studieaspiraties en zelfconcepten van de leerlingen lager zullen liggen in scholen met een hoge concentratie van autochtone en middenklasse leerlingen dan in scholen met een hoge concentratie van arbeidersklasse en etnische minderheid leerlingen.

Contacttheorieën

De *contacttheorie* van Allport (1954) en de variaties hierop (zie bijvoorbeeld Sigelman & Welch, 1993; Pettigrew & Tropp, 2006) worden meestal aangehaald met betrekking tot de effecten van schoolcompositie op interetnische relaties tussen de leerlingen (zie bijvoorbeeld Quillian & Campbell, 2003; Hamm, Brown & Heck, 2005; Chan & Birman, 2009). Kort samengevat beweren deze auteurs dat gemengd schoollopen van leerlingen uit verschillende etnische groepen tot meer contact leidt tussen de etnisch verschillende leerlingen. Deze contacten zouden interetnische vriendschappen met zich meebrengen, althans indien aan de nodige voorwaarden wordt voldaan, zoals de voorwaarde dat contact moet gebeuren tussen gelijke statusgroepen en dat deze groepen gedeelde doelen moeten hebben. Deze duurzame contacten zouden ook andere gunstige gevolgen hebben zoals het wegebben van vooroordelen tegenover andere etnische groepen (de outgroup) en dat mensen een sterkere solidariteit ontwikkelen tegenover die outgroup.

Het c*ommon ingroup identity model* (CIIM; Gaertner & Dovidio, 2000) is in feite een uitbreiding van de contacttheorie. Het verschil is dat CIIM focust op *sociale identiteiten* als uitkomsten van interetnische contacten. Volgens het CIIM gaan mensen die initieel een uiteenlopende sociale identiteit hebben naar elkaar toegroeien met betrekking tot hun sociale identiteiten en zullen ze geneigd zijn om een gemeenschappelijke identiteit te zoeken wanneer ze uitgebreide sociale contacten met elkaar hebben. Met andere woorden, volgens het CIIM zullen interetnische contacten, die ontstaan als gevolg van de etnische compositie van de school, ertoe leiden dat etnische minderheden in hogere mate de sociale identiteiten overnemen die doorgaans geassocieerd worden met de autochtonen (bijvoorbeeld nationale

identiteit). De interetnische contacten kunnen er eveneens toe leiden dat de sociale identiteiten van autochtone leerlingen getemperd zullen worden.

Conflicttheorieën

Het tegenovergestelde van de contacttheorieën wordt geponeerd door de conflicttheorieën, namelijk door de *group threat* theorie en de *imbalance of power* theorie. De *group threat* theorie (Blumer, 1958; Blalock, 1967; Quillian, 1995 Longshore, 1982) kan in verband gebracht worden met de impact van etnische compositie op interetnische conflicten in een school (zie bijvoorbeeld Goldsmith, 2004). Volgens de *group threat* theorie kan de groepsgrootte van de outgroup in een gegeven context ertoe leiden dat de leden van de dominante ingroup zich bedreigd voelen in hun voorrechten. Als reactie hierop ontstaan er meer internetnische conflicten naarmate de groepsgrootte van de outgroup stijgt (Blumer, 1958; Blalock, 1967). In de meer recentere werken rond de *group threat* theorie wordt er echter geargumenteerd dat het verband tussen de etnische compositie en interetnische conflicten niet lineair maar eerder curvilineair verloopt en dat de hoeveelheid internetnische conflicten een piek bereiken in fiftyfifty situaties, omdat in dergelijke situaties niet duidelijk zou zijn wie de dominante groep is (Longshore, 1982; Goldsmith, 2004).

De *imbalance of power* theorie, ten slotte, is een relatief recent theoretisch perspectief dat vooral gebruikt wordt in verband met de effecten van de etnische compositie op het pestgedrag en het gepest worden van de leerlingen (zie bijvoorbeeld Juvonen et al., 2001; Graham, 2006). Volgens dit perspectief is de macht van een individu in een context afhankelijk van de relatieve groepsgrootte waartoe het individu behoort. Aangezien machtsongelijkheid één van de belangrijkste determinanten is van pestgedrag, impliceert dit dat een hogere concentratie van autochtonen minder macht betekent voor de leerlingen uit etnische minderheden en resulteert in hogere kans dat ze gepest zullen worden. Het omgekeerde geldt voor de autochtonen.

Constricttheorie

De bovengenoemde contact- en conflicttheorieën hebben in eerste instantie betrekking op de etnische *concentratie* of *densiteit* binnen een sociale context, *in casu* de schoolcontext. Theoretisch gezien is er veel minder bekend over de gevolgen van etnische *diversiteit* of *heterogeniteit* van een sociale context. Een relatief recent theoretisch perspectief waarmee de gevolgen van etnische diversiteit op de leerlingen

gekaderd kan worden, is de constricttheorie zoals die voorgesteld is door Robert Putnam (2007). Volgens Putnam zou etnische diversiteit in eerste instantie het sociaal kapitaal in een omgeving naar beneden halen omdat mensen in etnisch diverse omgevingen 'schildpaddengedrag' vertonen; ze worden afgeschrikt door de etnische diversiteit en trekken zich terug uit het sociale leven, ze gaan minder sociale banden aan met anderen en ze zijn minder gehecht aan collectieve identiteiten. Een belangrijke claim van de constricttheorie is dat etnische diversiteit negatief gerelateerd zou zijn aan zowel de sociale relaties die mensen aangaan met hun eigen etnische groep, als met andere etnische groepen. Met gegevens uit de Verenigde Staten toonde Putnam aan dat de mate van etnische diversiteit op buurtniveau inderdaad negatief gerelateerd is aan verschillende indicatoren van sociaal kapitaal op individueel niveau. De bevindingen van Putnam worden slechts gedeeltelijk gerepliceerd in studies in Nederland (Tolsma, van der Meer & Gesthuizen, 2009; Lancee & Dronkers, 2011), in Groot-Brittannië (Letki, 2008) en Canada (Stolle, Soroka & Johnston, 2008). De meeste van deze studies vinden dat etnische diversiteit geen of nauwelijks invloed uitoefent wanneer er gecontroleerd wordt voor sociaaleconomische kenmerken. Andere auteurs hebben geprobeerd om de constricttheorie te testen op een hoger niveau, namelijk op niveau van landen, maar vonden weinig tot geen significante effecten (zie Hooghe, Reeskens, Stolle & Trappers, 2009; Gesthuizen, van der Meer, & Scheepers, 2009). De vraag is dan ook in welke mate de constricttheorie toepasbaar is in een schoolcontext. Men zou kunnen verwachten dat de constrictprocessen sterker aanwezig zijn in een schoolcontext dan in buurten en/of landen, omdat de kenmerken van een school veel dichter bij de leerlingen staan dan de kenmerken van een buurt of een land voor een inwoner ervan. We hebben echter geen weet van studies die de constricttheorie toegepast hebben in scholen.

3.3. Onderzoek naar leerling-leerkracht interacties

3.3.1. Ontstaansgeschiedenis

Zowel de SER studies als de segregatiestudies hebben weinig aandacht gehad voor de rol van de leerkracht met betrekking tot compositie-effecten (vandaar dat compositie-effecten vaak gewoonweg 'peer-effecten' worden genoemd in beide tradities). Deze leemtein beide onderzoekstradities kan worden opgevuld met de theoretische en empirische onderzoeksgegevens die voortvloeien uit de studies naar leerling-

leerkracht interacties. De onderzoekstraditie naar de leerling-leerkracht interacties kan ruwweg opgedeeld worden in twee subdisciplines. Enerzijds zijn er de studies die de zich focussen op de gevolgen van de verwachtingen die de leerkrachten hebben over hun leerlingen. Anderzijds zijn er de studies die focussen op de gevolgen van de interpersoonlijke relaties tussen leerlingen en leerkrachten, zoals de mate van ervaren steun, emotionele verbondenheid, conflict of afhankelijkheid.

Onderzoek naar leerkrachtenverwachtingen

De onderzoekstraditie met betrekking tot leerkrachtenverwachtingen gaat op zijn minst terug naar het werk van Howard Becker (1952). Becker argumenteerde dat sociale ongelijkheid in het onderwijs deels tot stand komt omdat arbeidersklasse leerlingen niet voldeden aan het beeld van de 'ideale' leerling van de leerkrachten. Dit zou leiden tot een problematische leerling-leerkracht interactie. Maar de kwestie van de leerkrachtenverwachtingen werd pas echt bekend met het pionierswerk van Rosenthal en Jacobson (1968). In het zogenaamde pygmalion experiment werd aan bepaalde leerkrachten verteld dat sommige van hun leerlingen '*bloomers'* waren en dat ze waarschijnlijk grote vorderingen zouden maken tijdens het komende jaar. Acht maanden later bleek dat deze toevallig geselecteerde '*bloomers'* effectief een grotere vooruitgang hadden gemaakt dan andere leerlingen in hun school. De pygmalion studie had een grote impact op het onderwijsonderzoek: reeds tien jaar later konden Rosenthal en Rubin (1978) een meta-analyse uitvoeren van 345 studies over het effect van leerkrachtenverwachtingen. Vanaf eind de jaren zeventig hebben verschillende studies zich vooral gericht op de vraag *hoe* de leerkrachtenverwachtingen een invloed uitoefenden op de leerprestaties. Deze studies nuanceerden echter heel sterk de eerdere bevindingen: leerkrachtenverwachtingen bleken vooral accuraat te zijn (dit wil zeggen, in overeenstemming met de voorgaande academische prestaties van de leerlingen) en de netto-effecten van de leerkrachtenverwachtingen op de studieresultaten van de leerlingen bleken gering in effectgrootte (zie Cooper, 1979; Brophy, 1983; Jussim 1989; Jussim & Eccles, 1992).

De theoretische basis van de leerkrachtenverwachtingeneffecten is het *self-fulfilling prophecy* mechanisme zoals beschreven door Merton (1968). De notie van *self-fulfilling prophecy* geeft een invulling aan het Thomas theorema: '*If men define situations as real, they are real in their consequences*' (Thomas & Thomas, 1928, p. 572). Er is sprake van een *self-fulfilling prophecy* wanneer een voorspelling of een

verwachting steunt op een foute definitie van de situatie, maar een gedrag oproept dat het originele foute concept 'waar maakt'.

De werking van het *self-fulfilling prophecy* mechanisme in het onderwijs werd voornamelijk getheoretiseerd door Jussim (1986). Hierbij onderscheidt hij drie stappen. Ten eerste, de leerkracht ontwikkelt bepaalde verwachtingen met betrekking tot de onderwijsprestaties van een leerling. Ten tweede handelt de leerkracht in het verlengde van de vooropgestelde verwachtingen. En ten derde reageert de leerling in het verlengde van de gestelde verwachtingen. Cruciaal hierbij is de stelling dat leerkrachtenverwachtingen een invloed kunnen uitoefenen op de onderwijsprestaties via de overtuigingen van de leerlingen over zichzelf, waarbij deze overtuigingen beïnvloed worden door de leerkrachten.

Onderzoek naar interpersoonlijke relaties tussen leerlingen en leerkrachten

Vanaf eind de jaren tachtig zien we een tweede onderzoekstraditie ontstaan die probeert te achterhalen hoe de interpersoonlijke relaties tussen leerlingen en leerkrachten een invloed uitoefenen op de cognitieve en non-cognitieve uitkomsten van de leerlingen. Deze studies hebben herhaaldelijk aangetoond dat gunstige leerling-leerkracht relaties – zoals die ervaren worden door een leerkracht of door een leerling – positief bijdragen tot de onderwijsprestaties, zelfwaardering en academische motivatie van de leerlingen (zie Ryan, Stiller & Lynch, 1994; Harter, 1996; Roeser & Eccles, 1998; Murray & Greenberg, 2000; Reddy, Rhodes, & Mulhall, 2003; Crosnoe, Johnson & Elder, 2004). Bij het onderzoeken van de gevolgen van de interpersoonlijke relaties tussen leerlingen en leerkrachten hebben onderwijspsychologen vooral beroep gedaan op de *attachment* theorie van Bowlby (1982). Op basis daarvan argumenteren ze dat ondersteunende en nauwe banden tussen leerlingen en leerkrachten zullen uitmonden in gunstigere uitkomsten, dan leerling-leerkracht relaties die gekenmerkt worden door afhankelijkheid en conflict (zie bijvoorbeeld Birch & Ladd, 1997; Wentzel, 1998; Hamre & Pianta, 2001). Sociologisch georiënteerde auteurs hebben vooral beroep gedaan op het concept van sociaal kapitaal, zoals omschreven door Coleman (1988), en geargumenteerd dat de sociale relaties die een leerling ontwikkelt met zijn leerkracht een belangrijke hulpbron (*resource*) is. Wel een cruciale hulpbron, gezien de centrale rol van de leerkracht in het onderwijsproces (zie bijvoorbeeld Muller, 2001; Crosnoe et al., 2004).

3.3.2. Schoolcompositie en leerling-leerkracht interacties

Vanaf de jaren zeventig heeft het onderzoek aangetoond dat sociaaleconomische en etnische achtergrond van een leerling gerelateerd zijn aan de leerkrachtenverwachtingen (Rist, 1970; Harvey & Slatin, 1975; Dusek and Joseph 1985; Jussim, Eccles & Madon, 1996) en gerelateerd zijn aan de interpersoonlijke relaties tussen een leerling en leerkrachten (Alexander et al., 1987; Muller, 2001). Leerling-leerkracht interacties bleken vooral gunstig te zijn voor autochtone en hoge-SES leerlingen. Slechts recentelijk hebben de onderzoekers echter de etnische en sociaaleconomische *compositie* van scholen gelinkt aan de leerling-leerkracht interacties. Indicatief voor dit type van onderzoek zijn de verschillende werken van Valerie Lee en collega's (Lee, Dedrick & Smith, 1991; Lee & Loeb, 2000; Halvorsen, Lee & Andrade, 2009) en de studies van Van Houtte en haar team (Van Houtte, 2003, 2011; Van Maele & Van Houtte, 2009, 2011). Lee en collega's hebben in hun studies aangetoond dat in scholen met een hoger aandeel van etnische minderheden en lagere SES-compositie, de leerkrachten minder verantwoordelijkheidsgevoel hebben met betrekking tot het schoolsucces van hun leerlingen. Van Houtte (2003) heeft gevonden dat Vlaamse leerkrachten in secundaire scholen met een lagere SES-compositie, minder academisch georiënteerd zijn en dat ze verwachten dat hun leerlingen minder onderwijsbaar zijn. Van Maele en Van Houtte (2009, 2011) hebben geconcludeerd dat een lagere SES-compositie leidt tot minder vertrouwen van de leerkrachten in de leerlingen. Naast deze studies, zijn we op hoogte van twee studies die de invloed van compositiekenmerken op leerling-leerkracht interacties hebben nagegaan (Crosnoe et al, 2004; McKown & Weinstein, 2008). Crosnoe en collega's (2004) hebben gevonden dat in scholen die etnisch homogener zijn en in scholen met een lagere SES-compositie leerlingen meer verbondenheid rapporteren met hun leerkrachten. McKown en Weinstein (2008) wezen erop dat een hogere etnische diversiteit, hoewel niet geoperationaliseerd op basis van een fractionele index, leidt tot hogere leerkrachtenverwachtingen.

Twee eerdere studies zijn hier bijzonder relevant, namelijk Van Houtte (2003) en Rumberger en Palardy (2005): deze studies onderzoeken de intermediaire rol van de leerkrachten om de effecten van schoolcompositie op de onderwijsprestaties van de leerlingen te verklaren. De studies rapporteren dat in scholen met een lagere SES-compositie de leerkrachten academisch gezien minder verwachten van hun leerlingen. En naarmate de leerlingen minder onderwijsbaar bevonden worden, neemt de kans dat de leerlingen academisch falen toe (Van Houtte, 2003) en dalen de

onderwijsprestaties (Rumberger & Palardy, 2005). De opvattingen van de leerkrachten over de onderwijsbaarheid van hun leerlingen verklaren dus voor een stuk de effecten van SES-compositie op de onderwijsprestaties van de leerlingen.

3.3.3. Verklaringmechanismen

In de voorgaande paragraaf hebben we beschreven via welke mechanismen leerling-leerkrachten interacties een invloed hebben op de leerlingenuitkomsten. Echter, compositiekenmerken dienen eveneens een invloed te hebben op deze leerling-leerkracht interacties, opdat deze de relatie tussen schoolcompositie en leerlingenuitkomsten kunnen verhelderen. Voortbouwend op het werk van Cohen (1955) over het ontstaan van (sub)culturen, argumenteert Van Houtte (2011) dat leerkrachten geneigd zijn om hun algemeen beeld over het lesgeven aan te passen aan de specifieke situatie waarin ze zelf onderwijzen. Zo hebben leerkrachten een algemeen beeld over het lesgeven dat bijvoorbeeld tot stand is gekomen tijdens hun eigen schoolloopbaan of hun opleiding. Wanneer een leerkracht echter in een school terechtkomt waar zijn of haar algemeen beeld niet opgaat omdat de school afwijkt van het modale beeld, heeft de leerkracht twee opties: ofwel de situatie veranderen door bijvoorbeeld op zoek te gaan naar een andere school of te stoppen met het beroep, ofwel zijn of haar referentiekader aanpassen aan de specifieke context (Fang, 1996). De tweede optie ligt vaak het meest voor de hand, waarbij leerkrachten zich doorgaans zouden laten leiden door de bestaande maatschappelijke stereotypen over hun specifieke schoolsituatie (zie Van Houtte, 2011.). Over hoe de referentiekaders van de leerkrachten worden aangepast met betrekking tot de etnische compositie, is de notie van *sociale hypochondrie* (Schinkel, 2007, 2008, 2009) bijzonder relevant. Volgens de sociale hypochondrie theorie (SHT, voor een uitgebreide beschrijving verwijzen we naar hoofdstuk VI) worden allochtonen gestereotypeerd als sociale virussen die een bedreiging vormen voor de gezondheid van de sociale lichamen (sociale contexten). Daarom kan er verwacht worden dat de concentratie van allochtonen in een gegeven context tot gevolg zal hebben dat men de sociale gezondheid van deze sociale context in vraag stelt. Maar omdat de allochtonen niet weg te denken zijn uit de samenleving, zal men geneigd zijn om bepaalde etnische composities (zowel concentratie als diversiteit) te prefereren boven andere. Meer specifiek kan er verwacht worden dat etnische composities waarvan men veronderstelt dat ze de *assimilatie* van de allochtonen mogelijk maken en de sociale

context *immuniseren* tegen toekomstige bedreigingen, de voorkeur zullen genieten. De gepercipieerde bedreigingen die geassocieerd worden met de etnische samenstelling van een sociale context kunnen echter beschouwd worden als een vorm van *sociale hypochondrie* indien deze verwachtingen niet accuraat zijn, dit wil zeggen, niet samenhangen met de effectieve gevolgen van de etnische compositie of indien deze verwachtingen zelf de oorzaak zijn van negatieve gevolgen.

3.4. Naar een integratie van de drie onderzoekstradities

Vooralsnog bestaan de drie onderzoekstradities – SER, segregatiestudies en de studies naar leerling-leerkracht interacties – voornamelijk naast elkaar. Het valt eveneens op dat auteurs in deze tradities weinig naar elkaar refereren. Nochtans zijn ze zeer complementair met betrekking tot hun gebreken en pluspunten (zie Tabel 1). Om tot een beter begrip te komen van de gevolgen en de processen van schoolcompositie, streven we de integratie van de drie onderzoekstradities na. We bespreken hieronder hoe we tot een geïntegreerd theoretisch model komen.

Tabel 1. De verdiensten en de minpunten van drie onderzoekstradities

	SER studies	Segregatiestudies	Leerling-leerkracht interacties studies
Determinanten:			
SES compositie	+/-	+++	+/-
Etnische compositie	---	+++	+/-
Processen:			
Schoolcultuur en klimaat processen	+++	---	---
Peergroup theorieën	---	+++	---
Leerling-leerkracht processen	---	---	+++
Uitkomsten:			
Cognitieve uitkomsten	+++	+++	+++
Non-cognitieve uitkomsten	---	+++	+++

3.4.1. De determinanten

Wat de centrale determinanten in het geïntegreerd model betreft, volgen we voornamelijk de inzichten van de segregatiestudies over de compositiekenmerken. We doen dit vooral om de beperkte focus hieromtrent bij de SER studies te overstijgen. Ten eerste, zowel etnische compositie als sociaaleconomische compositie maken deel uit van het geïntegreerd model. Op basis van de normatieve referentiegroeptheorieën kan worden verwacht dat sociaaleconomische compositie een effect zal uitoefenen op

de cognitieve uitkomsten, terwijl op basis van de referentiegroep-, contact- en constricttheorieën de etnische compositie in verbinding gebracht kan worden met de non-cognitieve uitkomsten. Ten tweede, met betrekking tot de etnische compositie dient er een conceptueel onderscheid gemaakt te worden tussen enerzijds de etnische concentratie/densiteit van een school en anderzijds de etnische diversiteit/heterogeniteit van een school. Op basis van de constricttheorie verwachten we vooral negatieve gevolgen van etnische diversiteit/heterogeniteit op de sociale relaties van de leerlingen. Ten derde, de compositiekenmerken gaan causaal gezien steeds vooraf aan de procesvariabelen. Daarom dienen compositiekenmerken eerder in de modellen toegevoegd te worden dan de procesvariabelen. Op deze manier kan men een *overcontrol bias* vermijden, dat is het onderschatten van de impact van compositiekenmerken door te controleren voor processen die causaal gezien onder de invloed van compositiekenmerken staan (zie Goldsmith, 2010, 2011). Anderzijds laat deze procedure toe om een completer beeld te verkrijgen van de relatie tussen compositiekenmerken en leerlingenuitkomsten. De rol van de procesvariabelen wordt immers duidelijker: wanneer door het toevoegen van een procesvariabele oorspronkelijke effecten van schoolcompositie gereduceerd worden, kan me spreken over verklarende mediatoren; wanneer door het toevoegen van procesvariabelen oorspronkelijke effecten van schoolcompositie versterkt worden, kan men spreken over suppressie-effecten door de processen.

3.4.2. De processen

De belangrijkste doelstelling van het voorliggend proefschrift is het openen van de *black-box* in verband met compositie-effecten. Daarom staan de processen, verklaringsmechanismen, die de relaties tussen compositiekenmerken en leerlingenuitkomsten kunnen verhelderen centraal in het geïntegreerd model. Hiervoor doen we zowel beroep op peergroup theorieën, als op de noties van schoolcultuur en schoolklimaat die we besproken hebben bij de SER studies. Gezien beide tradities weinig aandacht schenken aan de rol die de leerkrachten spelen, worden ze in het geïntegreerd model aangevuld met leerling-leerkracht processen die we afleiden van studies naar de leerling-leerkracht interacties.

De processen die opgenomen worden in het geïntegreerd model kunnen we indelen op basis van drie dimensies: (1) het *subject,* (2) de *aard*, (3) en het *niveau* van de processen. Wat betreft het *subject* van de processen, onderscheiden we peergroup-

processen en leerling-leerkracht processen. De peergroup-processen spelen zich af tussen de leerlingen zoals de theorieën van de segregatiestudies voorop stellen terwijl de leerling-leerkracht-processen betrekking hebben op de verhoudingen tussen de leerlingen en de leerkrachten, zoals vooropgesteld door het onderzoek naar leerling-leerkracht interacties.

De *aard* van de processen is een tweede dimensie waarmee we processen kunnen indelen. Een onderscheid kan worden gemaakt tussen enerzijds *opvattingen* en anderzijds *sociale relaties*. Opvattingen zijn persoonlijke cognities van de leerlingen of de leerkrachten. De invloed van compositiekenmerken op de opvattingen van de leerlingen kunnen worden gekaderd vanuit de normatieve en comparatieve referentiegroeptheorieën. De relatie tussen compositiekenmerken en de opvattingen van de leerkrachten kan vanuit de sociale hypochondrie theorie begrepen worden. Sociale relaties verwijzen naar interpersoonlijke relaties tussen de leerlingen onderling of tussen de leerlingen en de leerkrachten. De effecten van compositiekenmerken op de sociale relaties tussen de leerlingen kunnen vanuit de contact-, conflict- en constricttheorieën gekaderd worden.

Ten slotte, wat betreft het *niveau*, kunnen we een onderscheid maken tussen enerzijds processen die zich afspelen op het individuele niveau (bij de leerlingen of de leerkrachten) en anderzijds processen die zich afspelen op het schoolniveau. Wat de processen op het schoolniveau betreft, dient een onderscheid gemaakt te worden tussen elementen van schoolcultuur en schoolklimaat, zoals beschreven in de SER literatuur. Wanneer schoolniveau processen verwijzen naar gedeelde opvattingen spreken we over schoolcultuur (leerlingencultuur of leerkrachtencultuur), wanneer ze verwijzen naar sociale relaties spreken we over schoolklimaat (leerlingen-relatieklimaat of leerling-leerkracht-relatieklimaat). Deze tweedelingen binnen elk van de drie dimensies (2 x 2 x 2) resulteert in acht verschillende processen, die de ruggengraat van het geïntegreerd model vormen: (1) leerlingenopvattingen, (2) leerlingencultuur, (3) leerlingenrelaties, (4) leerlingen-relatieklimaat, (5) leerkrachtenopvattingen, (6) leerkrachtencultuur, (7) leerling-leerkracht-relaties, (8) leerling-leerkracht-relatieklimaat (zie Tabel 2).

Tabel 2. De processen in het geïntegreerd theoretisch model

Subject	Aard	Niveau	
		Individueel niveau	**School niveau**
Peergroup-processen	**Opvattingen**	Leerlingenopvattingen	Leerlingencultuur
	Relaties	Leerlingenrelaties	Leerlingen-relatieklimaat
Leerling-leerkracht-processen	**Opvattingen**	Leerkrachten-opvattingen	Leerkrachtencultuur
	Relaties	Leerling-leerkracht-relaties	Leerling-leerkracht-relatieklimaat

3.4.3. De uitkomsten

Met betrekking tot de uitkomsten, zullen we de beperkte focus van de SER studies (die zich vooral focussen op de effecten op cognitieve uitkomsten) eveneens overstijgen. Meer specifiek nemen we ook non-cognitieve uitkomsten op in het geïntegreerd model, dit in navolging van theorieën en empirische bevindingen binnen de segregatiestudies. Wat de cognitieve uitkomsten betreft, kan men op basis van de eerdere studies een onderscheid maken tussen onderwijsprestaties *(academic achievement)*, het behaalde opleidingsniveau (*educational attainment)* en het falen op school *(school failure).*

Tabel 3. De uitkomsten in het geïntegreerd theoretisch model

Cognitieve uitkomsten	Non-cognitieve uitkomsten
Onderwijsprestaties *(achievement)*	Zelfbeeld
Opleidingsniveau (*attainment)*	Schoolwelbevinden
Falen *(failure)*	Interetnische relaties

Wat de non-cognitieve uitkomsten betreft, kan men op basis van normatieve en comparatieve referentiegroeptheorieën, constricttheorie en het CIIM effecten van etnische schoolcompositie op *het zelfbeeld* van de leerlingen verwachten. Daarnaast kan men op basis van contact-, conflict- en constricttheorieën effecten van etnische schoolcompositie op *interetnische relaties* verwachten. Ten slotte, kan men op basis van conflict- en constricttheorieën effecten van etnische schoolcompositie op het

schoolwelbevinden verwachten. Deze drie cognitieve en drie non-cognitieve uitkomsten worden opgenomen in het geïntegreerd model (zie Tabel 3).

3.5. Het geïntegreerd model toegepast

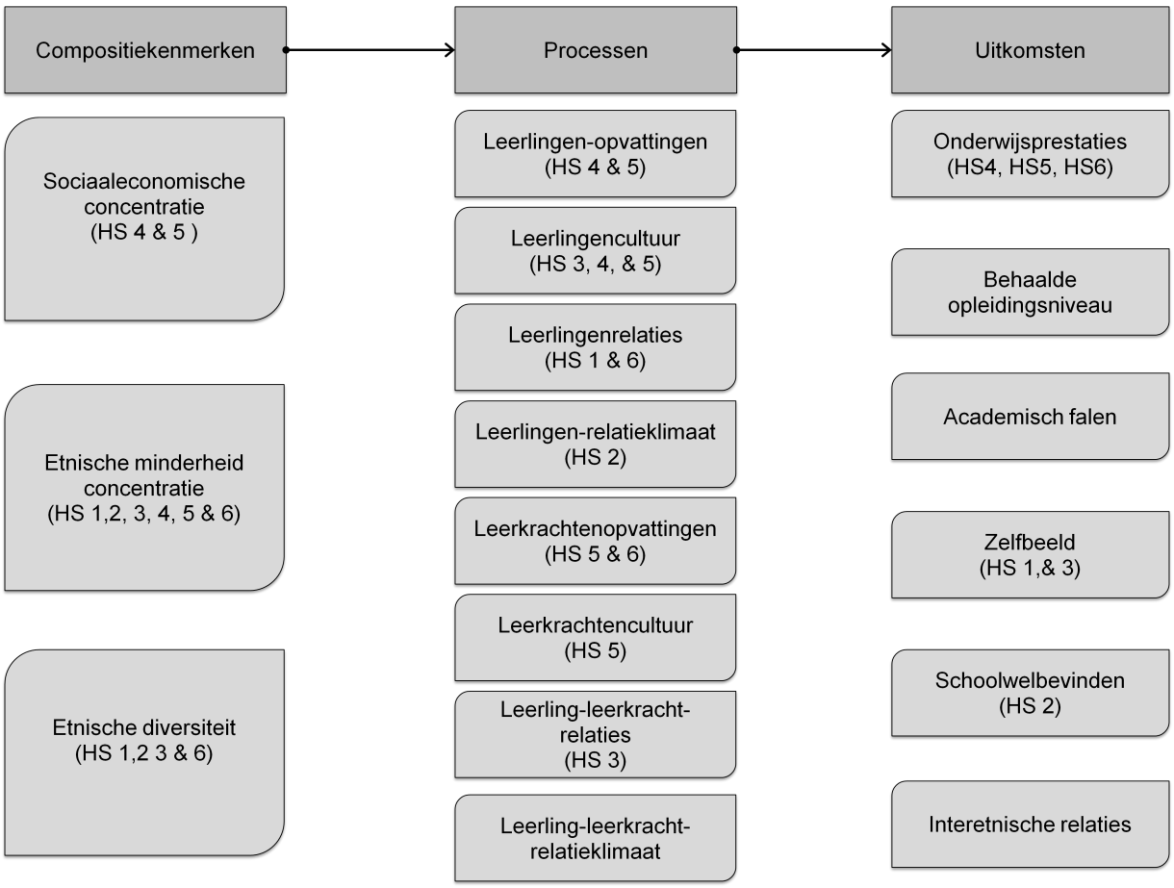
Het bovengeschetste theoretisch model is een generatief model, dat wil zeggen, het kan worden toegepast in verschillende studies naar de effecten van schoolcompositie. In de zes hoofdstukken van dit proefschrift maken we gebruik van dit geïntegreerd model, maar niet alle deelelementen worden bestudeerd. In Figuur 1 geven we een overzicht van de toepassing van het model, voor de concrete operationalisering van de verschillende determinanten, processen en uitkomsten verwijzen we de lezer naar deelhoofdstuk 5 van dit algemeen inleidend hoofdstuk.

Wat de centrale determinanten betreft, bestuderen we in alle hoofdstukken de gevolgen van etnische minderheidsconcentratie. Etnische diversiteit wordt opgenomen in alle hoofdstukken waar we de effecten op non-cognitieve variabelen nagaan (hoofdstuk I, II en III), en in hoofdstuk VI met betrekking tot onderwijsprestaties. De sociaaleconomische compositie wordt in verbinding gebracht met de onderwijsprestaties in hoofdstuk IV en V.

Wat de bestudeerde uitkomsten betreft, is er noodzakelijkerwijs een selectie gemaakt. Deze selectie is gebeurd op basis van wetenschappelijke en praktische overwegingen. Wat de cognitieve uitkomsten betreft, was een meting van het behaalde onderwijsniveau *(attainment)* irrelevant, gezien we focussen op de leerlingen van het lager onderwijs. We hebben wel een meting gedaan van het academisch falen *(failure),* namelijk of de leerlingen in het verleden zijn blijven zitten *(grade retention).* Deze laatste is opgenomen als een controlevariabele voor de eerdere cognitieve prestaties om selectie-effecten te vermijden (zie hoofdstuk IV, hoofdstuk V, en hoofdstuk IV). De uiteindelijke cognitieve uitkomst die we hebben opgenomen zijn de onderwijsprestaties *(academic achievement)*. Wat de selectie van non-cognitieve uitkomsten betreft, hebben we ons toegelegd op het zelfbeeld (hoofdstuk I en III) en het schoolwelbevinden (hoofdstuk II) van de leerlingen. Bij het selecteren van deze uitkomsten hebben we vooral innovatie-overwegingen in acht genomen. Zo hebben we geen onderzoek gedaan naar de effecten op interetnische relaties omdat deze eerder zijn bestudeerd in Vlaams onderzoek (Van Houtte & Stevens, 2009). Desalniettemin hebben we de interetnische relaties opgenomen als een procesvariabele (hoofdstuk I en hoofdstuk III).

Van de acht processen die opgenomen zijn in het geïntegreerd model, bestuderen we elementen van leerlingenopvattingen (hoofdstuk IV en V), leerlingencultuur (hoofdstuk II, IV en V), leerlingenrelaties (hoofdstuk I en VI), leerlingen-relatieklimaat (hoofdstuk II), leerkrachtenopvattingen (onderwijs-baarheidsverwachtingen, hoofdstuk V), leerkrachtencultuur (hoofdstuk V), leerling-leerkracht-relaties (hoofdstuk III).

Figuur 1. Het geïntegreerd theoretisch model met toepassingen op hoofdstukken



4. De data

Voor het realiseren van de onderzoeksdoelstellingen was het noodzakelijk om nieuwe gegevens te verzamelen. Meer specifiek hebben we voor deze onderzoeksdoeleinden een grootschalig surveyonderzoek gedaan in 68 lagere scholen, waarbij 2845 leerlingen en 706 leerkrachten bevraagd werden. Deze gegevens werden aangevuld met kwalitatieve diepte-interviews in vijf scholen bij 26 leerkrachten en directeurs. In dit deelhoofdstuk leggen we uit hoe we de dataverzameling hebben gerealiseerd.

4.1. De populatie

Aangezien we in eerste instantie inzicht willen verwerven in de gevolgen van etnische en sociaaleconomische schoolcompositie, dient de steekproef scholen te bevatten waarvan de schoolcompositie voldoende gevarieerd is. Vooral naar etnische compositie zou een representatieve steekproef voor Vlaanderen weinig variabiliteit opgeleverd hebben. Daarom hebben we besloten om de steekproef van scholen te trekken in regio's waar er een voldoende etnische variatie aanwezig is. We kozen voor Antwerpen, Genk en Gent.

Op basis van de gegevens die door het Vlaams Ministerie van Onderwijs zijn verzameld in het kader van de telling van alle leerlingen in februari 2008, hadden we een indicatie van de etnische compositie van de scholen in de drie steden. De officiële telling bevat immers gegevens over de gesproken thuistaal van de leerlingen. Deze gaf ons een beeld van de etnische achtergrond van de leerlingen, en bijgevolg ook van de etnische schoolcompositie van scholen in onze populatie. Deze cijfers zijn in september 2008 ter beschikking gesteld door het Departement Onderwijs. Thuistaal werd door het ministerie op drie wijzen geregistreerd. Aan de ouders werd gevraagd (1) Spreekt het kind met de moeder Nederlands? (2) Spreekt het kind met de vader Nederlands? (3) Spreekt het kind met de broers en zussen Nederlands?. Wanneer het kind een 'score' van twee op drie heeft en dus minstens met twee van deze gesprekspartners geen Nederlands spreekt, dan wordt het kind geregistreerd als iemand die thuis geen Nederlands spreekt. Als het met minstens twee gesprekspartners Nederlands spreekt dan staat het geregistreerd onder 'thuistaal is Nederlands'. Voor het selecteren van de scholen menen we dat het criterium 'thuistaal niet-Nederlands' voldoende is om een beeld te hebben van de etnische schoolcompositie. Bij het analyseren van de verzamelde gegevens zullen we ons echter baseren op het land van herkomst van de leerlingen (zie paragraaf 5.1).

Op basis van de proportie leerlingen die volgens de telling van het ministerie onder de categorie 'thuistaal niet-Nederlands' vallen, kunnen we een school onderverdelen in drie categorieën: (1) 'witte' school (minder dan 10% allochtone leerlingen), (2) gemengde scholen (tussen 10% en 50% allochtone leerlingen), (3) 'zwarte' scholen (meer dan 50% allochtone leerlingen).

Uit Tabel 4 kan de lezer afleiden dat er voldoende scholen aanwezig zijn in de populatie (N = 234). De gegevens hier hebben betrekking op scholen als administratieve eenheden. Een administratieve eenheid kan echter bestaan uit meerdere vestigingsplaatsen. In de analyses beschouwen we de vestigingsplaats – en niet de administratieve eenheid – als een school. De overgrote meerderheid van basisscholen (administratieve eenheden) bevindt zich in de regio Antwerpen (N=141). Gent telt 73 scholen en Genk 20 scholen. Daarnaast blijkt dat de etnische compositie van de scholen binnen onze populatie voldoende gevarieerd is om een beeld te krijgen over de oorzaken en gevolgen van etnische schoolsegregatie. Ongeveer de helft van de scholen binnen onze populatie behoort tot de categorie gemengde scholen (N=118) en 'witte' (N=63) en 'zwarte' (N=53) scholen maken elk ongeveer een kwart van de populatie uit.

Tabel 4. Verdeling van scholen (administratief eenheid) in de populatie volgens etnische compositie en regio (N = 234)

	Wit	Gemengd	Zwart	Totaal
Antwerpen	34	66	41	141
Genk	5	11	4	20
Gent	24	41	8	73
Totaal	63	118	53	234

4.2. De gewenste steekproef van scholen

We maakten voor dit onderzoek gebruik van een getrapte steekproef. In de eerste fase selecteerden we drie regio's: Antwerpen, Gent & Genk. In de tweede fase werden de scholen geselecteerd binnen elke regio. We opteerden initieel om 7 'witte', 7 gemengde en 7 'zwarte' scholen te selecteren binnen iedere regio. Maar omdat er slechts 20 scholen zijn in de regio Genk, moesten alle scholen in Genk opgenomen worden in de steekproef. Bijgevolg lag de etnische compositie van de Genkse scholen reeds op voorhand vast. Uiteindelijk kwamen we tot de volgende gewenste verdeling van scholen in de steekproef (zie Tabel 5).

Tabel 5. Verdeling gewenste steekproef volgens etnische schoolcompositie en regio

	Antwerpen	Genk	Gent	Totaal
Wit	7	5	7	19
Gemengd	6	11	6	23
Zwart	7	4	7	18
Totaal	20	20	20	60

4.3. Communicatieprocedure

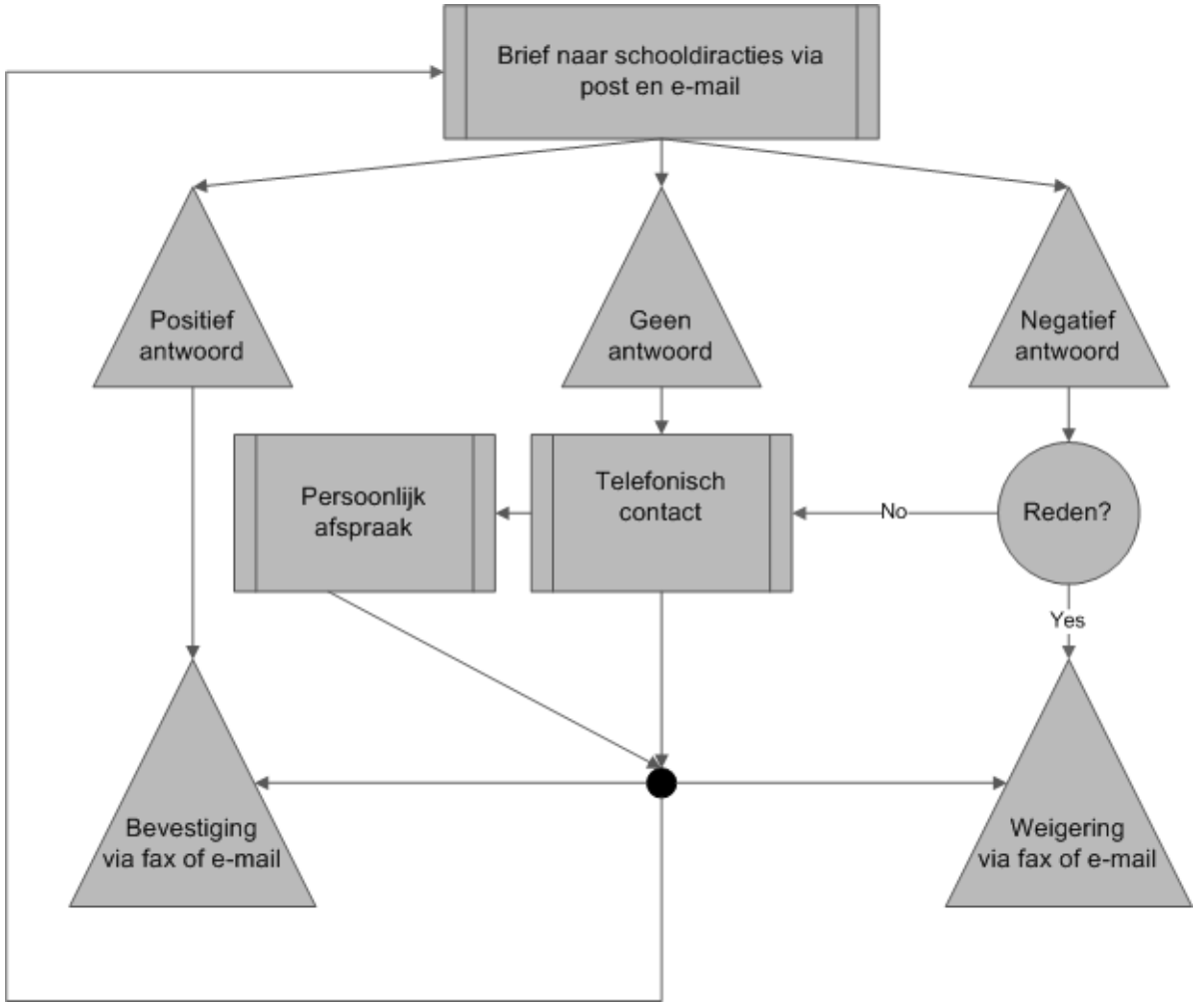
Bij het aanschrijven van scholen werd er rekening mee gehouden dat schooldirecties autonoom beslissingsrecht hebben om al dan niet deel te nemen aan wetenschappelijk onderzoek en dat scholen veelal overbevraagd zijn voor onderzoek. Met dit gegeven in het achterhoofd, hebben we de scholen proberen te overtuigen om mee te werken aan het onderzoek door de maatschappelijke en wetenschappelijke meerwaarde van het onderzoek te benadrukken en de last die we aan de scholen zouden bezorgen minimaal te houden. Bovendien hebben we aan de scholen beloofd om de resultaten die betrekking hebben op hun school door middel van een rapport terug te koppelen. (Deze rapporten hebben we hen na afloop van de kwantitatieve dataverzameling bezorgd)

De scholen in onze steekproef kregen het eerste semester van het schooljaar 2008-2009 (oktober en november) een eerste informatiepakket in de. Deze bevatte een inleidende brief over het onderzoek waarin de maatschappelijke en wetenschappelijke meerwaarde van het onderzoek werd uitgelegd. Daarnaast bevatte het een antwoordformulier waarin de schooldirecties konden instemmen of weigeren. Er werd gevraagd of dit formulier via fax of e-mail terug te bezorgen. Wanneer de weigering niet gegrond was met een reden, werd er telefonisch contact opgenomen met de schooldirectie. Indien we drie weken na het versturen van de informatiepakken geen antwoord hadden gekregen, werd er eveneens telefonisch contact opgenomen. Dit resulteerde - op vraag van schooldirecties - meestal in het opnieuw versturen van het informatiepakket (deze keer via e-mail). Bij een viertal scholen werd er persoonlijk afgesproken met de schooldirecties om ze toch nog te overtuigen om mee te werken aan het onderzoek. Wanneer de scholen hun medewerking weigerden aan de telefoon, werd er gevraagd om ons alsnog het antwoordformulier via e-mail of fax te versturen.

De uiteindelijke bevestiging of weigering werd altijd via fax en in bepaalde gevallen via e-mail ontvangen. We vroegen hierbij expliciet naar de handtekening van

de schooldirecteur en de stempel van de school om later misverstanden te vermijden. Bij positieve respons werd er ook informatie gevraagd over het aantal leerlingen in het eerste, vijfde en het zesde leerjaar en het aantal leerkrachten opdat we voorbereid zouden zijn voor de dataverzameling (zie Figuur 2).

Figuur 2. Structuur van de contactprocedure bij van de scholen



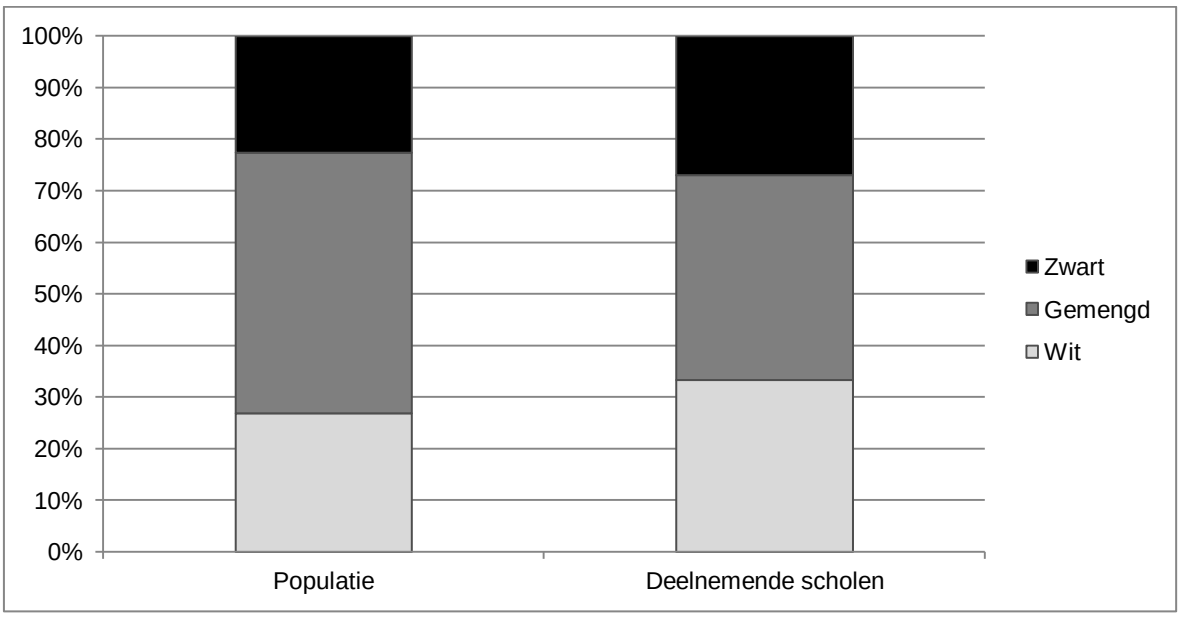
4.4. Gerealiseerde steekproef van scholen

Van de 234 scholen in de populatie werden er 7 scholen uit de populatie verwijderd. Het gaat hier om Joodse scholen. Deze vorm van *per definitie* religieuze segregatie valt immers buiten het spectrum van dit onderzoek. Er waren geen 'Turkse' (Lucerna) of 'Moslimscholen' in de populatie. In totaal werden er 116 scholen gevraagd om mee te werken aan het onderzoek, waarvan 63 besloten hebben om deel te nemen. 53 scholen hebben dus een negatief antwoord gegeven. Dit brengt de totale *responsrate*

van het onderzoek op 54%. In de volgende paragraaf komen we uitgebreider terug op deze non-respons.

Uit Figuur 3 komt duidelijk naar voren dat ongeveer een derde van de scholen die deelnemen aan het onderzoek 'witte' scholen zijn (N= 21), dat iets minder dan een derde van de scholen 'zwarte' scholen zijn (N = 17) en dat iets meer dan een derde van de scholen gemengde scholen zijn (N = 25). Deze verdeling van de etnische compositie van de deelnemende scholen blijkt bovendien parallel te lopen met de verdeling binnen de populatie, mits de bewuste *oversampling* van 'witte' en 'zwarte' scholen.

Figuur 3. Verdeling van scholen binnen de populatie (N=234) en de deelnemende scholen (N= 63) volgens etnische compositie



We moeten erop wijzen dat de gegevens hierboven betrekking hebben op scholen als administratieve eenheden. Wanneer we dezelfde analyse doen op scholen als reële entiteiten, dus als vestigingsplaatsen, komen we tot de onderstaande verdeling (Tabel 6).

Tabel 6. Verdeling van deelnemende vestigingen volgens etnische compositie en regio (N = 68)

	Antwerpen	Genk	Gent	Totaal
Wit	5	5	11	21
Gemengd	4	11	13	28
Zwart	13	4	2	19
Totaal	22	20	26	68

4.5. Non-respons bij scholen

We hebben reeds opgemerkt dat de algemene responsrate van de aangeschreven scholen 54% was. De weigerachtige houding van veel scholen tegenover wetenschappelijk onderzoek is ondertussen een algemeen bekend fenomeen binnen de academische wereld. Bij het aanschrijven van scholen hebben we daarom gevraagd wat de motieven zijn van scholen om niet deel te nemen aan het onderzoek. Deze worden samengevat in Tabel 7. Van de 53 weigerende scholen hebben we van dertien scholen na verschillende pogingen geen of geen duidelijk reden van weigering kunnen ontvangen. Het gaat hier meestal om scholen waarvan we de directie na verschillende pogingen niet hebben kunnen contacteren. Veertien scholen lieten weten dat ze overbevraagd of overbelast zijn, of te maken hebben met een zware planlast. Elf andere scholen motiveerden hun weigering door te verwijzen naar een lopend onderzoek in hun school. Vijf scholen verwezen naar schoolinterne problemen zoals het gebrek aan leerkrachten of verbouwingen aan de schoolgebouwen. Vier directeurs hebben ons laten weten dat hun leerkrachten het niet zagen zitten om mee te werken zonder verder te specificeren waarom. Een eigenaardig fenomeen is dat een aantal scholen – drie in ons geval – expliciet vermeldden dat enkel onderzoek door hun oud-leerlingen of 'eigen mensen' worden toegelaten. Twee scholen meldden ons dat onderzoek geen prioriteit geniet in hun denken over onderwijs. In één geval liet de zorgcoördinator van de school ons weten dat ons onderzoeksproject 'te beperkt' was.

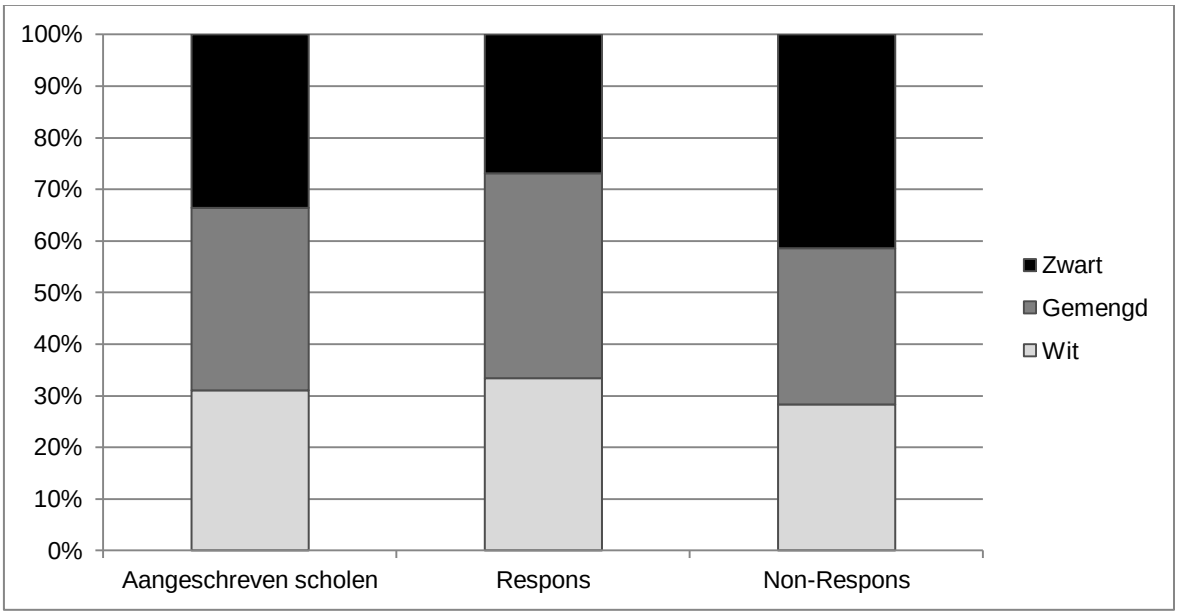
Tabel 7. Verdeling van de motivaties van scholen bij het weigeren (N = 53)

Motivatie bij weigering	Aantal
Planlast / Overbelasting	14
Ander onderzoek	11
Schoolinterne problemen	5
Leerkrachten willen niet	4
Enkel onderzoek van 'eigen mensen' en oud-leerlingen	3
Andere prioriteiten	2
'Onderzoek te beperkt'	1
Geen	13
Totaal	53

Eén van de schooldirecteurs die weigerde, motiveerde zijn beslissing als volgt: *'blijkbaar zijn het altijd dezelfde scholen die een interessante doelgroep zijn voor onderzoek'*. Het ging hier om een 'zwarte' school. De vraag is of dus of de kleur van de school effectief een beslissende factor is bij het al dan niet meedoen aan het

onderzoek. Wanneer we Figuur 4 bekijken lijkt op het eerste gezicht dat 'zwarte' scholen minder geneigd zijn om deel te nemen aan het onderzoek terwijl gemengde scholen relatief minder geweigerd hebben dan 'witte' en 'zwarte' scholen. Uit een statistische test blijkt echter dat de 'kleur' van de school niet significant samenhangt met al dan niet meedoen aan het onderzoek (N = 116; Pearsons X^2 = 2.78; Cramers V = 0.155; DF = 2; p = 0.25). Het gemiddeld aandeel allochtonen is 29.60% in scholen die willen meewerken en 36.95% in scholen die weigerden om deel te nemen aan het onderzoek. Ook wanneer we de impact van de etnische schoolcompositie metrisch nagaan (t-test aan de hand van het aandeel 'allochtone' leerlingen binnen scholen), vinden we geen significant effect op de respons terug (DF = 114; p = 0.156).

Figuur 4. Respons en non-respons van scholen naar etnische schoolcompositie



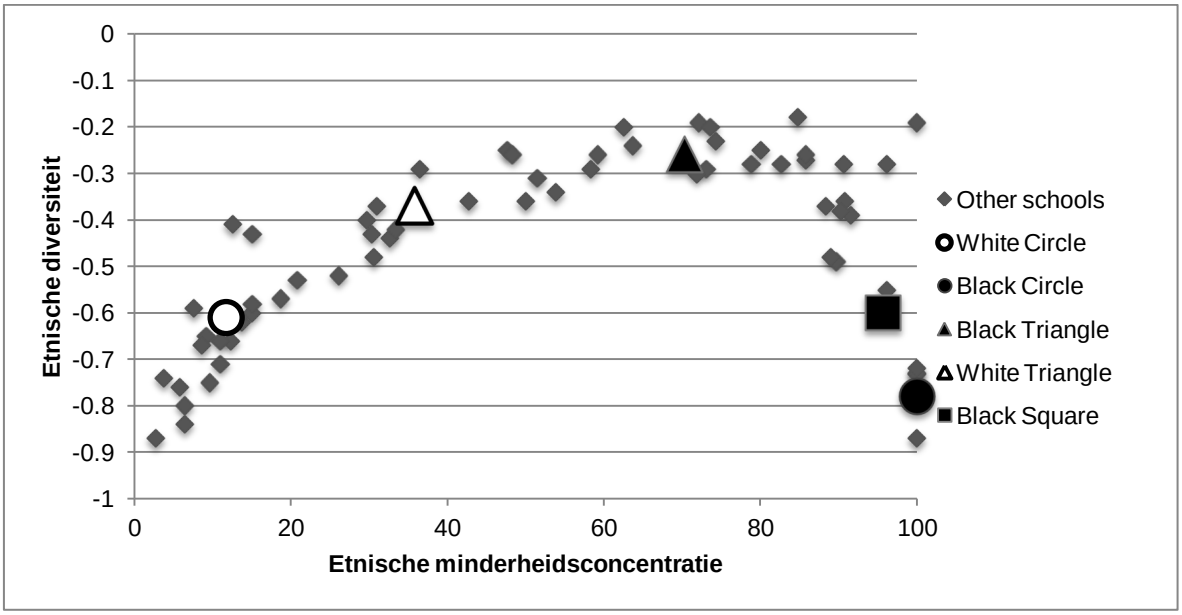
4.6. Gerealiseerde steekproef van leerlingen en leerkrachten

Binnen de deelnemende scholen werden alle klassen van het vijfde leerjaar geselecteerd. Indien er minder dan 30 leerlingen aanwezig waren in het vijfde leerjaar werden alle leerlingen van het zesde leerjaar eveneens geselecteerd. De bevraging van de leerlingen gebeurde vanaf de tweede helft van het schooljaar 2008-2009. Leerlingen vulden de vragenlijsten in in hun klaslokaal. Hierbij was steeds een onderzoeker aanwezig om de enquête in te leiden en eventuele vragen te beantwoorden. In totaal werden er 2845 leerlingen bevraagd in de 68 scholen (vestigingen) van de steekproef. De uitval van leerlingen was beperkt tot een klein

aantal leerlingen die op de dag van bevraging afwezig/ziek waren (N = 108; 3.65%). Alle leerkrachten van de deelnemende scholen werden eveneens geselecteerd. De klasleerkrachten vulden een pen-en-papier enquête tijdens de klassikale bevraging in. De andere leerkrachten vulden dezelfde enquête in via een websurvey. Van de 1643 leerkrachten hebben er in totaal hebben 706 leerkrachten de enquête ingevuld, wat de globale responsrate bij de leerkrachten op 42.97% brengt.

In het eerste semester van het schooljaar 2009-2010 hebben we uit de 68 scholen waar we kwantitatieve gegevens hebben verzameld, vijf scholen geselecteerd voor de kwalitatieve dataverzameling. Ook deze vijf scholen komen uit de hele range van de etnische compositie. De *White Circle* is e een 'witte' school met ongeveer tien procent allochtone leerlingen; de *White Triangle* is een school waarbij ongeveer twee derde van de leerlingen autochtonen zijn; in de *Black Triangle* is ongeveer twee derde van de leerlingen allochtonen; *Black Square* en *Black Circle* zijn beide 'zwarte' scholen waar er minder dan tien procent autochtonen zijn (zie Figuur 5).

Figuur 5. De verdeling van de scholen volgens de etnische compositie. Kwalitatief bevraagde scholen aangeduid.



In deze scholen hebben we diepte-interviews afgenomen met de directeurs en drie tot vijf leerkrachten. Bij het selecteren van deze leerkrachten hebben we ervoor geopteerd om zowel mannelijke als vrouwelijke leerkrachten te interviewen (zie Tabel 8 voor een overzicht van de respondenten). Deze interviews werden afgenomen in de scholen zelf.

Tabel 8. Lijst van respondenten die kwalitatief bevraagd zijn

Pseudoniem	School	Functie	Leeftijd	Geslacht
Jef	White Triangle	Zorg	46	Man
Piet	White Triangle	Leerkracht	44	Man
Ann	White Triangle	Leerkracht	44	Vrouw
Dimitri	White Triangle	Leerkracht	26	Man
Joris	White Triangle	Directie	49	Man
Saskia	Black Square	Leerkracht	30	Vrouw
Sarah	Black Square	Leerkracht	20	Vrouw
Rik	Black Square	Leerkracht	27	Man
Laure	Black Square	Leerkracht	34	Vrouw
Maria	Black Square	Directie	30	Vrouw
Kelly	Black Circle	Zorg	26	Vrouw
Simon	Black Circle	Leerkracht	56	Man
Tom	Black Circle	Leerkracht	55	Man
Katja	Black Circle	Leerkracht	45	Vrouw
Kristof	Black Circle	Leerkracht	32	Man
Sonja	Black Circle	Directie	50	Vrouw
Nadia	Black Triangle	Leerkracht	37	Vrouw
Jaclyn	Black Triangle	Leerkracht	30	Vrouw
Eric	Black Triangle	Leerkracht	30	Man
Katrien	Black Triangle	Directie	50	Vrouw
Caroline	White Circle	Leerkracht	37	Vrouw
Mieke	White Circle	Leerkracht	38	Vrouw
Koen	White Circle	Leerkracht	52	Man
Hans	White Circle	Leerkracht	58	Man
Lise	White Circle	Leerkracht	47	Vrouw
Patrick	White Circle	Directie	45	Man

5. Operationalisering van de centrale variabelen

In wat volgt beschrijven we de operationalisering en de univariate kenmerken van de centrale determinanten, uitkomsten en procesvariabelen. De controlevariabelen die worden ingevoerd in verschillende hoofdstukken worden hier niet besproken (hiervoor verwijzen de lezer naar de hoofdstukken zelf).

5.1. De determinanten

De drie centrale determinanten van het voorliggend doctoraatsonderzoek zijn afgeleid uit het geïntegreerd model (zie paragraaf 3.5): de etnische minderheidsconcentratie, etnische diversiteit en sociaaleconomische status (SES) compositie van de scholen (zie Figuur 6). Vooraf dient opgemerkt te worden dat we ons zowel voor de etnische minderheidsconcentratie als de etnische diversiteit van scholen gebaseerd hebben op de etnische achtergrond van de leerlingen. Deze laatste zijn we nagegaan op basis van de geboorteplaats van de grootmoeders van de leerling, en als hierover geen gegevens beschikbaar waren, werd gekeken naar de geboorteplaats van de ouders en van de leerling zelf. We onderscheiden 11 regio's: (1) België (46,7%), (2) West-Europa (5,6%), (3) Zuid-Europa (6.6%), (4) Turkije (13.0%), (5) Marokko (15.6%), (6) Andere Noord-Afrika (1.0%), (7) Oost-Europa (5.8%), (8) Sub-Sahara Afrika (1.8%), (9) Midden-Oosten (1.2%), (10) Zuid-Oost Azië (1.7%), (11) andere (1.1%).

Etnische minderheidsconcentratie

De etnische concentratie/densiteit werd nagegaan op basis van het percentage niet-westerse allochtonen (zie hoger: regio's 3 tot en met 11) per school in onze databank. Gemiddeld genomen was het percentage allochtonen 51.50% (SD = 34.16), gaande van 2.631% tot 100%. We hebben eveneens aan de directies gevraagd om een schatting te geven van het percentage allochtonen op hun school en deze maat correleerde 0.81 (p < 0.001) met de etnische minderheidsconcentratie maat die wij gebruiken. Dit kan dienen als een validatie van onze meting.

Etnische diversiteit

In navolging van Dronkers (2010), werd de etnische diversiteit/heterogeniteit nagegaan op basis van de Herfindahl-index (H.I). Deze index meet wat de kans is dat twee toevallig geselecteerde leerlingen van een school van verschillende etnische afkomst zijn. De H.I. werd met de volgende formule berekend, waarbij we rekening

houden met de bovengenoemde 11 regio's/etnische groepen: -1 x [(proportie$_{groep1}$ ² + (p_{groep2})² +…+ ($p_{groep11}$)²]. De H.I. varieert theoretisch gezien van -1 tot 0 waarbij -1 staat voor volledige homogeniteit (alle leerlingen op school zijn van hetzelfde afkomst), terwijl 0 staat voor volledige diversiteit (alle leerlingen op school van een andere afkomst zijn). In onze data varieert de H.I. van -0.88 tot -0.18 met een gemiddelde van -0.46 (*SD* = 0.20).

SES compositie

De SES compositie van de scholen werd nagegaan op basis van de beroepssituatie van de ouders. Deze werd nagegaan op basis van een open vraag die peilt naar het beroep van de ouders: de hoogste beroepsstatus van beide ouders werd als de indicator van individuele SES genomen (Erikson, Goldthorpe, & Portocarero, 1979). We hebben per school het percentage leerlingen met een arbeidersklasse achtergrond berekend (met toevoeging van leerlingen wiens ouders langdurig werklozen zijn) Gemiddeld genomen was het percentage arbeidersklasse leerlingen 37.47% (*SD* = 22.75), gaande van 2.44% tot 96.15%.

5.2. De uitkomsten

De cognitieve en non-cognitieve uitkomsten die we bestuderen, zijn eveneens gebaseerd op het geïntegreerd model (zie paragraaf 3.5). Wat de cognitieve uitkomsten betreft, focussen we in hoofdstukken IV, V en VI op de onderwijsprestaties, meer specifiek op wiskundeprestaties (zie Figuur 6). Er was binnen de bevraging van de leerlingen geen ruimte om de onderwijsprestaties in alle studiedomeinen te testen. We hebben geopteerd voor wiskundeprestaties omdat wiskundetesten over het algemeen minder vertekende resultaten opleveren met betrekking tot etnische minderheden dan taaltesten (Abedi, Hofstetter & Lord, 2004). Bovendien peilt de wiskundetest die we gebruikten ook in zekere mate naar de talige prestaties, omdat er ook vraagstukken voorgelegd werden.

Met betrekking tot de effecten op het zelfbeeld van de leerlingen, bestuderen we de effecten op *nationale en subnationale identiteit* (hoofdstuk I) en *zelfwaardering* (zie hoofdstuk III). Met betrekking tot het schoolwelbevinden, hebben we de effecten op *het gepest worden* nagegaan (zie hoofdstuk II). Voor een overzicht verwijzen we de lezer naar opnieuw naar Figuur 6. Bij het selecteren van deze operationaliseringen hebben we vooral innovatie-overwegingen in acht genomen. Zo hebben we geen

onderzoek gedaan naar de effecten het gevoel van thuishoren en aspiraties omdat deze uitkomsten eerder zijn bestudeerd in Vlaams onderzoek (zie Van Houtte & Stevens, 2009, 2010b).

Onderwijsprestaties (academic achievement)

De onderwijsprestaties van de leerlingen werden gemeten door een genormeerde rekentoets, ontwikkeld door Dudal en Deloof (2004). Deze toets bevat 60 items en peilt naar kennis over vraagstukken, hoofdrekenen, getallenleer en cijferen. Om er zeker van te zijn dat de vragen gedekt zijn door de curricula van de scholen, werden de testen voorgelegd aan de directeurs van de scholen. Twee scholen werden uit de data geweerd, omdat de directies niet konden bevestigen dat de test werd gedekt door het schoolcurriculum. De som van de correcte antwoorden werd genomen als indicatie van de onderwijsprestaties van een leerling (Cronbach's alpha = 0.91). In onze dataset hebben de leerlingen een gemiddelde score van 41.43 (*SD* = 10.65).

(Sub)nationale identiteit

Zowel de nationale (Belgische) als de subnationale (Vlaamse) identiteit van de leerlingen werd nagegaan op basis van de *Collective Self-Esteem Scale* (Luhtanen & Crocker, 1992). Deze bevat de volgende vijf items:

(1) Ik zie mezelf als een Belg
(2) Ik vind het vaak jammer dat ik een Belg ben (invers)
(3) Ik ben blij dat ik een Belg ben
(4) Ik heb vaak het gevoel dat België waardeloos is (invers)
(5) Ik heb een goed gevoel over België

(1) Ik zie mezelf als een Vlaming
(2) Ik vind het vaak jammer dat ik een Vlaming ben (invers)
(3) Ik ben blij dat ik een Vlaming ben
(4) Ik heb vaak het gevoel dat Vlaanderen waardeloos is (invers)
(5) Ik heb een goed gevoel over Vlaanderen

De leerlingen hadden vijf antwoordmogelijkheden gaande van 'helemaal niet akkoord' (score 1) tot 'helemaal akkoord' (score 5). Het gemiddelde van de vijf items werd genomen als indicatie van Belgische identificatie (Cronbach's alpha = 0.80) en Vlaamse identificatie (Cronbach's alpha = 0.82). In onze dataset hebben de leerlingen een gemiddelde Belgische identificatie van 3.824 (*SD* = 0.984) en een Vlaamse identificatie van 3.723 (*SD* = 1.029).

Gepest worden (vicitimization)

De mate waarin leerlingen worden gepest werd nagegaan op basis van drie zelf gerapporteerde items (zie Espelage & Swearer, 2003). Meer specifiek moesten de leerlingen aangeven in welke mate de volgende zaken gelden voor hen:

(1) Ik word op deze school gepest
(2) Ik word op deze school uitgesloten
(3) Ik word op deze school uitgescholden

Er waren telkens vijf antwoordcategorieën, gaande van 'nooit' (score 1) tot 'heel vaak' (score 5). Het gemiddelde van de drie items werd genomen als indicatie van de mate waarin een leerling werd gepest (Cronbach's alpha = 0.84). In onze dataset hebben de leerlingen een gemiddelde score van 1.878 (*SD* = 0.869).

Zelfwaardering (self-esteem)

De zelfwaardering van de leerlingen werd nagegaan op basis van de gestandaardiseerde Rosenberg Self-Concept schaal (Rosenberg & Simmons, 1972). Deze schaal bestaat uit de volgende 12 items:

(1) Ik aanvaard mezelf zoals ik ben
(2) Over het algemeen ben ik tevreden over mezelf
(3) Soms denk ik dat ik nergens goed voor ben en helemaal niet deug (invers)
(4) Ik denk dat ik een aantal goede eigenschappen bezit
(5) Ik ben een waardevol persoon, minstens evenwaardig aan anderen
(6) Ik wou dat ik meer respect kon hebben voor mezelf (invers)
(7) Nu en dan voel ik me nutteloos (invers)
(8) Ik heb maar weinig eigenschappen om trots op te zijn (invers)
(9) Ik neem een positieve houding aan tegenover mezelf
(10) Ik zal nooit bekwaam zijn het even goed te doen als de meeste anderen (invers)
(11) Al bij al ben ik geneigd mezelf een mislukkeling te noemen (invers)
(12) Ik denk dat ik fier mag zijn op mezelf

De leerlingen hadden vijf antwoordmogelijkheden gaande van 'helemaal niet akkoord' (score 1) tot 'helemaal akkoord' (score 5). Het gemiddelde van de twaalf items werd genomen als indicatie van de zelfwaardering van een leerling (Cronbach's alpha = 0.80). In onze dataset hebben de leerlingen een gemiddelde score van 3.79 (*SD* = 0.62).

5.3. De procesvariabelen

De procesvariabelen die we bestuderen zijn eveneens gebaseerd op het geïntegreerd model (zie paragraaf 3.5). We operationaliseren leerlingenopvattingen met het *gevoel van futiliteit* (hoofdstuk IV en V), leerlingencultuur met *futiliteitscultuur* (hoofdstuk IV en V) en *teacher support cultuur* (hoofdstuk III), leerlingenrelaties met *interetnische vriendschappen* (hoofdstuk I) en *taalgebruik* (hoofdstuk VI), leerlingen-relatieklimaat met het *interetnisch klimaat* (hoofdstuk II), de leerkrachtenopvattingen met de *onderwijsbaarheidsverwachtingen* (hoofdstuk V), de leerkrachtencultuur met de *onderwijsbaarheidscultuur* (hoofdstuk V), leerling-leerkracht-relaties met *teacher support* (hoofdstuk III). Opgemerkt moet worden dat *teacher support cultuur* in feite ook beschouwd kan worden als een onderdeel van leerling-leerkracht-relatieklimaat (het verwijst immers naar sociale relaties tussen leerlingen en leerkrachten op schoolniveau), maar we beschouwen het als een element van leerlingencultuur omdat het in essentie over gedeelde opvattingen van de leerlingen over de leerkrachtensteun gaat. Voor een overzicht verwijzen we naar Figuur 6.

Interetnische vriendschappen

De mate waarin leerlingen interetnische vriendschappen hebben, werd gemeten op basis van een vraag die peilde in welke mate allochtone leerlingen 'Belgische' vrienden hadden en autochtone leerlingen 'niet-Belgische' vrienden hadden. De leerlingen hadden vijf antwoordmogelijkheden, gaande van 'geen enkele' (score 1) tot 'allemaal' (score 5). In onze dataset hebben de leerlingen een gemiddelde score van 2.28 ($SD = 1.07$).

Interetnisch klimaat

Het interetnisch klimaat van een school werd gemeten op basis van twee indicatoren. Enerzijds is het klimaat van interetnisch vriendschappen gemeten door het gemiddelde op schoolniveau te berekenen van interetnische vriendschappen (zie hierboven). Het gemiddelde klimaat van interetnische vriendschappen in onze data bedraagt 2.29 ($SD = 0.40$). Anderzijds hebben we het klimaat van interetnische *conflicten* gemeten door het gemiddelde van interetnische conflicten te berekenen op schoolniveau. De individuele interetnische conflicten zijn gemeten op basis van een vraag die peilde in welke mate allochtone leerlingen ruzie/conflicten hadden met

'Belgische' leerlingen en hoe vaak autochtone leerlingen conflicten hadden met niet-Belgische leerlingen. De leerlingen hadden vijf antwoordmogelijkheden, gaande van 'nooit' (score 1) tot 'heel vaak' (score 5). Het gemiddelde klimaat van interetnische conflicten in onze data bedraagt 2.130 (*SD* = 0.35).

Futiltiteitsgevoelens

De mate waarin leerlingen gevoelens van academische futiliteit tonen werd gemeten op basis van de volgende vier items die gebaseerd zijn op Brookover et al. (1979):

(1) Voor mensen als ik is er weinig kans dat we in het leven bereiken wat we graag willen
(2) Mensen zoals ik zullen het nooit goed doen op school, zelfs al proberen we nog zo hard
(3) Als ik hard werk, kan ik het goed doen op school (invers)
(4) Leerlingen zoals ik hebben geen geluk op school

De leerlingen hadden vijf antwoordmogelijkheden gaande van 'helemaal niet akkoord' (score 1) tot 'helemaal akkoord' (score 5). Het gemiddelde van de vier items werd genomen als indicatie van het gevoel van futiliteit van de leerling (Cronbach's alpha = 0.62).

Futiliteitscultuur

Aangezien we cultuur gedefinieerd hebben als 'gedeelde opvattingen' (zie paragraaf 3.1.4) gaan we voor de cultuurvariabelen steeds statistisch na of we kunnen spreken van *gedeelde* opvattingen door de mate van gedeeldheid van de opvattingen binnen de scholen aan te duiden. Meer specifiek hebben we de *'mean rater reliability'* (MRR) berekend die gebaseerd is op de intraclasscorrelatie van een éénwegsvariatieanalyse met volgende formule:

$$MRR(1,k) = (BMS-WMS)/BMS$$

waarbij k = aantal individuen ('*raters*') in elke school, BMS = '*mean square'* tussen scholen en WMS = '*mean square'* binnen scholen.

De verkregen MRR moet minimum 0.60 zijn om het gebruik van een geaggregeerde maat te kunnen verrechtvaardigen (Glick, 1985; Shrout & Fleiss, 1979). De futiliteitscultuur werd berekend op basis van individuele scores van futiliteitsgevoelens, meer specifiek door het gemiddelde op schoolniveau te nemen. De gemiddelde futiliteitscultuur bedroeg in onze data 2.09 (*SD* = 0.28). De MRR was voldoende hoog (=0.73) en legitimeerde het aggregaat.

Taalgebruik

De mate waarin leerlingen Nederlands spreken werd gemeten op basis van zeven items. Meer specifiek werd aan de leerlingen gevraagd om aan te duiden welke taal ze spreken in de volgende situaties:

(1) Thuis met je vader
(2) Thuis met je moeder
(3) Thuis met je broers / zussen
(4) In de klas met je vrienden
(5) Op de speelplaats met je vrienden
(6) Buiten de school met je vrienden
(7) Op internet met je vrienden.

De leerlingen hadden vijf antwoordcategorieën, gaande van 'Altijd een andere taal' (score 1) tot 'altijd Nederlands' (score 5). Het gemiddelde van de zeven items werd genomen als indicatie van het taalgebruik van een leerling (Cronbach's alpha = 0.87). In onze dataset hebben de leerlingen een gemiddelde score van 4.29 (SD = 0.84).

Teacher support

De mate waarin leerlingen steun voelen van hun leerkrachten werd gemeten op basis van tien items die gebaseerd zijn op Brutsaert (2001) en Goodenow (1993):

(1) Mijn leerkrachten durven mij belachelijk te maken in het bijzijn van andere mensen (invers)
(2) Als ik iets wil vertellen, doen mijn leerkrachten alsof ze me niet horen (invers)
(3) Mijn leerkrachten aanvaarden mij zoals ik ben
(4) Mijn leerkrachten hebben vertrouwen in mij
(5) Ik heb het gevoel dat mijn leerkrachten heel weinig om mij geven (invers)
(6) Mijn leerkrachten zien alleen mijn fouten (invers)
(7) Mijn leerkrachten geven me het gevoel dat ik niets goed kan doen (invers)
(8) De meeste leerkrachten zijn geïnteresseerd in mij
(9) De leerkrachten op deze school zijn niet geïnteresseerd in mensen zoals ik (invers)
(10) De leerkrachten respecteren mij

De leerlingen hadden vijf antwoordmogelijkheden gaande van 'helemaal niet akkoord' (score 1) tot 'helemaal akkoord' (score 5). Het gemiddelde van de tien items werd genomen als indicatie van het gevoel van leerkrachtondersteuning van een leerling (Cronbach's alpha = 0.85). In onze data hadden de leerlingen een gemiddelde score van 4.02 (SD = 0.65).

Teacher support cultuur

De *teacher support* cultuur werd berekend op basis van de individuele teacher support scores van de leerlingen, meer specifiek door het gemiddelde op schoolniveau te nemen. Het gemiddelde van teacher support cultuur bedroeg in onze data 4.02 (*SD* = 0.17). De MRR was voldoende hoog (=0.66) en legitimeerde het aggregaat.

Onderwijsbaarheidsverwachtingen

De onderwijsbaarheidsverwachtingen van de leerkrachten werden gemeten op basis van 31 items, gebaseerd op Kornblau (1982). Meer specifiek hebben we aan de leerkrachten gevraagd om aan te duiden in welke mate ze akkoord gaan met de volgende stellingen:

Ik vind dat op deze school de leerlingen over het algemeen…

(1) aangenaam zijn in de omgang
(2) zich goed kunnen concentreren
(3) zelfvertrouwen hebben
(4) vriendelijk zijn
(5) veel verbeelding hebben
(6) rustig zijn
(7) sociaal goed aangepast zijn
(8) taken op tijd afmaken
(9) emotioneel stabiel zijn
(10) sterk verbaal bekwaam zijn
(11) van schoolwerk houden
(12) slim zijn
(13) veel inzicht hebben
(14) richtlijnen goed navolgen
(15) rekening houden met anderen
(16) goed meewerken
(17) ondernemend zijn
(18) logisch/rationeel denken
(19) leergierig zijn
(20) extravert zijn
(21) graag deelnemen aan lesactiviteiten
(22) opgewekt zijn
(23) intelligent zijn
(24) ernstig zijn
(25) enthousiast zijn in de les
(26) zich kunnen inleven in anderen
(27) eerlijk zijn
(28) een goed gevoel voor humor hebben
(29) bereiken wat op basis van hun leeftijd kan verwacht worden (academisch)
(30) taken in de klas zelfstandig kunnen beginnen en afmaken
(31) aandachtig zijn in de klas

De leerkrachten hadden vijf antwoordmogelijkheden gaande van 'helemaal niet akkoord' (score 1) tot 'helemaal akkoord' (score 5). Het gemiddelde van de 31 items werd genomen als indicatie van de onderwijsbaarheidsverwachting van de leerkracht. Het gemiddelde van onderwijsbaarheidsverwachting bedroeg in onze data 3.45 (*SD* = 0.49; Cronbach's alpha = 0.95).

Onderwijsbaarheidscultuur

De onderwijsbaarheidscultuur werd berekend op basis van individuele scores van onderwijsbaarheidsverwachtingen, meer specifiek door het gemiddelde op schoolniveau te nemen. De gemiddelde onderwijsbaarheidscultuur bedroeg in onze data 3.47 (*SD* = 0.38). De MRR was voldoende hoog (= 0.88) en legitimeerde het aggregaat.

6. Het onderzoeksdesign

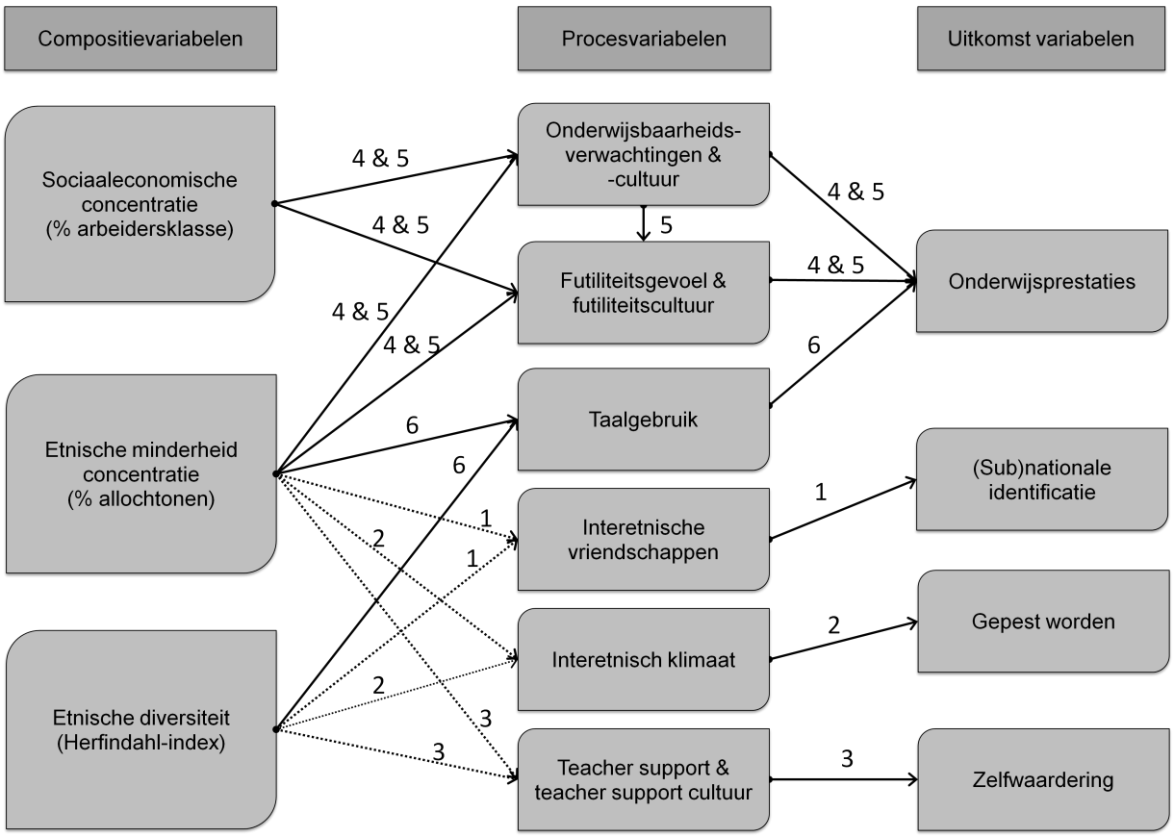
Aangezien de kwantitatieve data geclusterd zijn (de leerlingen en de leerkrachten zijn ingebed in scholen) en onze verklarende variabelen zowel op schoolniveau als op leerlingenniveau gesitueerd zijn, is het gebruik van multilevel regressieanalyses (random intercept, random slope modeling) het meest aangewezen (Singer, 1998; Raudenbush & Bryk, 2002). Zoals gebruikelijk in multilevelanalyses, testen we voor iedere uitkomst een nulmodel om na te gaan of de uitkomsten significant variëren tussen scholen. Om een zo duidelijk mogelijk beeld te verkrijgen, worden de variabelen stapsgewijs in de modellen toegevoegd. Compositiekenmerken worden steeds eerder in de modellen toegevoegd dan de procesvariabelen. Op deze manier wordt een een *overcontrol bias* vermeden, dat is het onderschatten van de impact van compositiekenmerken door te controleren voor processen die causaal gezien onder de invloed van compositiekenmerken staan (zie paragraaf 3.4.1) De regressiecoëfficiënten worden gestandaardiseerd om de sterkte van de effecten met elkaar te kunnen vergelijken. In hoofdstuk I, hoofdstuk III en hoofdstuk IV zijn alle analyses afzonderlijk uitgevoerd voor allochtone en autochtone leerlingen. Dit laat ons toe om alle coëfficiënten met elkaar te vergelijken voor beide groepen. Dit is gebeurd op basis van een t-test (Jaccard, Turrisi & Wann, 1990). Wanneer we slechts een beperkt aantal coëfficiënten willen vergelijken voor beide groepen, gebruiken we cross-level interacties (hoofdstuk II en hoofdstuk VI).

Het onderstaande Figuur 6 schetst het operationeel model van we het proefschrift. De cijfers boven ieder verbindingslijn geven aan in welke hoofdstuk deze relaties zijn onderzocht. Om de figuur niet te ingewikkeld te maken, worden de rechtstreekse verbinding van compositievariabelen naar uitkomst variabelen niet weergegeven. Wat de verbindingslijn van compositievariabelen naar processenvariabelen betreft, wijzen volle verbindingslijnen erop dat het effect expliciet is nagegaan (hoofdstuk V en VI). De stippellijnen daarentegen wijzen erop dat de relatie enkel impliciet is nagegaan, dat wil zeggen, de procesvariabelen zijn in de modellen toegevoegd om de intermediaire rol na te gaan.

De kwantitatieve meting van de opvattingen van leerkrachten wordt aangevuld met kwalitatieve data, waarbij we aan de leerkrachten gevraagd hebben om te reflecteren over zichzelf, over de leerlingen en over de school (hoofdstuk V en hoofdstuk VI). Aangezien de kwalitatieve gegevens getrokken zijn uit de kwantitatieve steekproef, wordt het combineren van beide methoden mogelijk. Zo testen we bijvoorbeeld in hoofdstuk VI de proposities van de sociaal hypochondrie

theorie op basis van mixed methods: op basis van de kwalitatieve data gaan we na hoe de leerkrachten de gevolgen van etnische concentratie en etnische diversiteit percipiëren en op basis van de kwantitatieve data gaan we na in welke mate de percepties van de leerkrachten accuraat zijn.

Figuur 6. Het operationeel model van de zes hoofdstukken



Hoofdstuk I: interetnische vriendschappen en identificatie

Ethnic school context and the national and sub-national identifications of pupils[1]

Abstract

In various European countries, policy-makers strive for educational desegregation to enhance pupils' national identifications. Since little empirical evidence supports such a policy and social identity theorists emphasize the importance of context, this article examines the impact of ethnic school composition - measured by the proportion of non-natives and ethnic heterogeneity - on the national (Belgian) and sub-national (Flemish) identifications of pupils. Multi-level data analyses from the surveying of 2,845 pupils (aged 10-12) in sixty-eight Flemish primary schools reveal differential effects for natives and non-natives. While the proportion of non-natives at school is negatively associated with non-native pupils' identifications, it is positively related to native pupils' identifications. In general, the ethnic heterogeneity of the school is negatively associated with pupils' national and sub-national identifications. Our findings indicate that the relation between ethnic school composition and pupils' identifications is mediated by the latter's inter-ethnic friendships. The consequences of these findings for educational policy are discussed.

[1] Dit hoofdstuk is gepubliceerd in *Ethnic and Racial Studies* (2011), *34* (2)

Introduction

A growing concern about ethnic school segregation is evident in many European countries. Such separation is considered not only unfavourable for educational achievement but also an obstruction to the social integration of immigrant and minority pupils (for Belgium: Jacobs, Rea and Teney 2009; Van Houtte and Stevens 2009; for England: Burgess, Wilson and Lupton 2005; for France: Felouzis 2005; for Germany: Kristen 2005; for the Netherlands: Westerbeek 1999; Karsten et al. 2006; for Sweden: Szulkin and Jonsson 2007). For example, in the aftermath of the 2001 riots in the UK, the ever-growing absence of social cohesion was linked to educational and residential ethnic segregation. Policy-makers argued that desegregation is a requisite for the cultivation of a sense of citizenship, in particular a stronger national identification, i.e. Britishness, and sub-national identification, i.e. Englishness (Cantle 2001; Ouseley 2001; Maxwell 2009). Similar evolutions took place in France. Although the topic of social integration there is commonly linked to the issue of residential segregation (*les banlieues*), educational segregation is seen as one of the most essential obstacles to attaining a stronger French national identification (Payet 1998; Felouzis 2005). In other words, policy-makers in different countries generally work towards the dispersal of minority/immigrant pupils (we call these groups non-natives), as they believe that the mixing of ethnicities in schools will enhance academic achievement and national identification, particularly with respect to non-native pupils (Mahieu 2002; Burgess, Wilson and Lupton 2005).

However, these policies lack a firm evidential foundation, since little empirical research has been conducted into the determinants of national identifications among children and young adolescents (e.g. Carrington and Short 1995; Verkuyten 2001; Barrett 2002; Reizabal, Valencia and Barrett 2004; Lam and Smith 2009). Moreover, although theorists of identity insist that social identifications are strongly dependent on contextual factors (Oakes, Haslam and Turner 1994), the impact of school attendance in segregated or integrated contexts on the national identifications of native and non-native pupils is obscure. While research has been conducted primarily into the effect of ethnic school segregation on educational achievement, inter-ethnic friendship and racial attitudes (for reviews, see Schofield 1991; Braddock and Eitle 2004), studies linking school segregation to social identifications have focused mostly on *ethnic* identity and in-group/out-group evaluations (Kinket and Verkuyten 1999; Umana-Taylor 2004). Hence, the relation between *de facto* school segregation and the national identifications of pupils remains generally unknown, and consequently the

above-stated political beliefs concerning the negative impact of ethnic school context on the development of national identifications are not based on empirical observations.

The main aim of this study is to address this lacuna. More specifically, we investigate the impact of ethnic school context - in terms of ethnic concentration and the ethnic heterogeneity/diversity of the student body - on the national identifications of 2,845 pupils in sixty-eight elementary schools in Flanders. Flanders, which is the Dutch-speaking regional state of Belgium, is a unique context, since, as an autonomous state, it is responsible for almost every aspect of educational policy. Therefore, besides the Belgian national identification, we also investigate the determinants of sub-national, that is, the Flemish identification of pupils.

National identification

As with gender or religious identifications, national identification can be regarded as a part of the individual's social identity (Barrett 2002). Tajfel (1981, p. 255) defines social identity as 'that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership'. Drawing upon this definition, national identification can be considered as the self-identification and emotive meaning that an individual derives from membership in a national group.

In contrast to the large number of studies on ethnic and gender identity, relatively little research has been conducted on the national identity of children and young adolescents. Early studies have examined the time span of the national identification process in children. These studies reveal that children begin to categorize themselves as members of a national group by ages 5 or 6. At this moment, however, children's gender and age identities seem to be more salient than their national identity. Nevertheless, national identity tends to increase in importance until the age of 11 or 12. By the age of 10, youngsters are able to describe the characteristics of their national group (for reviews, see Barrett 2002; Reizabal, Valencia and Barrett 2004).

More recently, different authors have focused on the impact of national identification on children's in-group favouritism. For example, Barrett (2002) reports that youngsters who categorized themselves as 'quite British' or 'very British' were more likely to link British people with positive adjectives, such as 'friendly', 'nice',

'clean'. Studies of children and young adolescents in the Netherlands (Kinket and Verkuyten 1999) and in the Basque country (Reizabal, Valencia and Barrett 2004) reveal similar results.

Qualitatively oriented research has focused on the negotiation of national identity by children and young adolescents, concentrating on the meaning derived by them from 'belonging' to a nation-state and the construction of their national identifications through the education system (for Australia: Howard and Gill 2001; for Greek Cyprus: Philippou 2005; for Ireland: Tormey 2006; for Scotland: Carrington and Short 1995). These studies underline the importance of the national context in which national identities are formed and negotiated. For example, Philippou (2005) shows that the importance placed on national identity by Greek Cypriot pupils was related to the highly politicized context of Cyprus, namely, the presence of a 'national enemy' on the island. In contrast, Howard and Gill (2001) indicate that Australian children were mostly uninterested in and unconcerned about being Australian.

National identification and ethnic minorities

When we take ethnic differences into account, this picture becomes more complex. For years, the one-dimensional assimilation model was the dominant framework. The theories based on it suggested that national identification and ethnic identification are antipodal, implying that the strength of the ethnic identify of non-natives determines the degree of their national identity (Phinney 1990). By contrast, current scholars argue for a bi-dimensional model. They have pointed out that ethnic identification does not necessarily compete with national identification, since people can combine multiple identities (Hutnik 1991; Phinney et al. 2001). For example, a Turkish immigrant in Flanders may perceive himself as 'very Belgian' (national identification) and simultaneously as 'very Flemish' (sub-national identification) and 'very Turkish' (ethnic identification). This is the notion of hyphenated or multiple identities (Gaertner and Dovidio 2000; Verkuyten 2004; Modood 2005).

Previous empirical studies on national identifications of immigrants and ethnic minorities have generally shown that these non-native groups identify less with the national category than natives do (for studies of Belgium, see Phalet and Swyngedouw 2002; Van Craen, Vancluysen and Ackaert 2007). Research on children and young adolescents reveals similar results (Carrington and Short 1995; Barrett 2002; Lam and Smith 2009). Barrett (2002) indicates that white English children

have a higher level of both 'Englishness' and 'Britishness' than children from ethnic minority groups. A study conducted by Carrington and Short (1995) with 8- to 11-year-old children demonstrates that more than 90 per cent of native children answered 'British' when responding to the question 'Are you British or something else?'. By contrast, only 38 per cent of non-native children said they were 'British', while a fifth claimed a specific ethnic identity, such as 'Chinese' or 'Jamaican'. In line with the idea of 'hyphenated identities', 25 per cent of non-natives described themselves as having both ethnic and national identity.

For the purpose of the present study, it is important to note that various authors have argued that national identification is partly determined by the social context. For instance, Vadher and Barrett (2009) show that the British identity of Indian and Pakistani is different in private and public spheres. These authors suggest that at the public level (e.g. at school) the British identity is more dominant than it is at the private level (e.g. at home). In their discussion, Lam and Smith (2009) argue that the ethnic school context may be an important determinant of national identifications, but, unfortunately, they do not provide empirical evidence to test this hypothesis.

Identification and ethnic school composition

Children and young adolescents spend almost half of their waking hours in a school context. Most theories on identity, self-categorization theory in particular, emphasize that social identities are strongly dependent on context (Tajfel 1981; Oakes, Haslam and Turner 1994), and empirical evidence supports this point (Hopkins and Murdoch 1999). It is, then, surprising that the relation between the school context and the national identifications of pupils is widely neglected. Therefore, our primary goal in this paper is to examine the manner in which pupils' national (Belgian) and sub-national (Flemish) identifications are influenced by contextual school factors, especially the ethnic composition of the student body, as measured by the proportion of non-native pupils (i.e. ethnic minority concentration) and the ethnic diversity/heterogeneity at school (see 'Variables' section below).

Reference group theory

Reference group theory (Kelley 1952; Hyman and Singer 1968; Merton 1968) is a suitable starting point to investigate the association between ethnic minority concentration and the national and sub-national identifications of pupils. According to this theory, a group, in a given context, might constitute either a *normative* reference or a *comparative* reference group for individuals. When the group functions as the former, it sets and enforces standards for individuals. This means that when the normative reference group tends to exhibit high national identifications, the individual will also be inclined to have a higher national identification. On the other hand, when the group functions as a comparative reference group, it does not function as the norm, but as a benchmark against which individuals compare and judge themselves. In this case, the contrast between the individual and the group is highlighted, which might enlarge the differences between them (Kelley 1952).

According to Merton (1968), individuals initially tend to choose their own group as their reference group. However, individuals might also choose groups to which they do not belong (e.g. a non-native pupil considering the native group as the point of reference). Because the relative size of a group in a given context (school) may increase or decrease the probability that it is chosen as a reference group, the proportion of natives or non-natives at school will be related to the likelihood that such groups will be chosen as the point of reference by individuals. As such, when *normative* reference group processes prevail and the proportion of native pupils at school increases (lower ethnic minority concentration), native pupils are more likely to be the normative reference group for both native and non-native individuals at school. This implies that the standards of natives (i.e. high national identification, see above) will be the norm for non-native individuals and might increase the latter's low national identifications. However, we do not expect that native individuals will be affected by the native reference group, since they already have high national identifications. In sum, the normative reference group theory generates the following hypothesis:

H1: An increasing proportion of native pupils at school (lower ethnic minority concentration) will be related to higher levels of national and sub national identifications for non-native pupils.

However, as stated above, *comparative* reference group processes might prevail as well. In this case, when the proportion of natives increases (lower ethnic minority concentration), the native groups' high national identification becomes a benchmark against which non-native individuals will compare themselves, which might further decrease their national identifications. On the other hand, an increasing ethnic minority concentration implies that the low national identifications of the non-native group will be the yardstick for native pupils. This contrast between the low identification of the non-native reference group and the high identifications of native individuals can be expected to further increase the national identifications of native pupils. Hence, drawing upon the comparative reference group framework the following hypotheses can be formulated. Note that hypothesis 2 is in conflict with hypothesis 1 above.

H2: An increasing proportion of native pupils at school (lower ethnic minority concentration) will be related to lower levels of national and sub-national identifications for non-native pupils.

H3: An increasing proportion of non-native pupils at school (higher ethnic minority concentration) will be related to higher levels of national and sub-national identifications for native pupils.

Constrict theory

Reference group theory is related to ethnic minority concentration, that is, the proportion of non-native pupils at school. In the literature, minority concentration is often confused with *ethnic diversity/heterogeneity*. However, these are two distinct concepts and two distinct measurements of ethnic composition (see Putnam 2007; Van Houtte and Stevens 2009). Ethnic diversity or heterogeneity refers to the degree of ethnic difference in a given context. For example, a school in England with Pakistani children only is less diverse than a school in which all the children are from different ethnic groups. To conceptualize the impact of ethnic diversity/heterogeneity at school level, we consider the 'constrict theory' as described in Putnam (2007).

According to constrict theory the degree of ethnic diversity in a given context triggers social anomie or social isolation. In ethnically diverse environments, both natives and non-natives will be less engaged in collective actions and will have fewer

close friends. It should be noted that Putnam states that this tendency applies only to the short run; in the long term, the wider benefits of ethnic diversity are evident. However, in the short term, ethnically diverse settings can be expected to be associated with a decrease in collectivity: 'People living in ethnically diverse settings appear to "hunker down" - that is, to pull in like a turtle' (Putnam 2007, p. 149). The original constrict theory takes neighbourhoods as units of contextual analysis, while we will test this hypothesis in the school context. Similarly, the original constrict theory does not link ethnic diversity/heterogeneity *directly* to national identifications, but to collectivity. However, we consider pupils' national and sub-national identifications as an utterance of such collectivity. After all, both native and non-natives are expected to share these collective identities. Flanders, for instance, is witnessing a growing tendency to address non-natives as 'new Belgians' or 'new Flemings', whereas in the past they were called primarily 'immigrants'. In sum, the following hypothesis can be formulated by drawing upon the constrict theory:

H4: Increasing ethnic diversity at school level will be associated with a decrease in national and sub-national identification for both native and non-native pupils.

Inter-ethnic friendship as mediator

The school effects literature underlines the importance of intermediate relations, that is, of mediator variables that clarify the relationship between structural school features and the dependent variable (for reviews, see Teddlie and Reynolds 2000; Van Houtte 2005). Therefore, the impact of ethnic school composition on the identifications of pupils should not be understood as a mechanical one, but rather as a mediating process. With regard to social identification, the common ingroup identity model (CIIM) (Gaertner and Dovidio 2000) points to the importance of inter-ethnic contact and friendships. According to the CIIM, when extended contact takes place between individuals from different social groups, these individuals will show a greater propensity to re-categorize their social identities towards those that connect both groups. For non-natives, this implies that increasing contact and friendship with natives might result in increasing national and sub-national identification (see Van Craen, Vancluysen and Ackaert 2007; Maxwell 2009). For natives, on the other hand, increasing contact and friendship with non-natives might temper their national and sub-national identifications, to minimize the social distance between them.

For pupils, these inter-ethnic friendships, in turn, are partly determined by the ethnic composition of the school, since several studies have shown that in schools with higher ethnic heterogeneity, pupils engage more in inter-ethnic friendships (Goldsmith 2004; Van Houtte and Stevens 2009). Hence, a mediational model can be formulated, which states that, given the expected association between ethnic school composition and inter-ethnic friendship and the relationship between inter-ethnic friendship and national identification, the following hypothesis emerges:

H5: The impact of the ethnic school composition on pupils' national and sub-national identifications (H1, H2, H3 and H4) will be mediated by the amount of their inter-ethnic friendships.

Methods

Sample

We used data gathered in 2008-9 from 2,845 pupils (mean age 11.61) in a sample of sixty-eight primary schools in Flanders as part of the Segregation in Primary Education in Flanders (SIPEF) project. Multi-stage sampling was conducted. In the first instance, in order to encompass the entire range of ethnic composition, we selected three cities in Flanders with ethnically diverse populations. Second, using data gathered from the Flemish Educational Department, 116 primary schools within these selected cities were asked to participate; this yielded a positive response of 54 per cent. This relatively high non-response of schools is because Flemish schools are commonly swamped with such requests from investigators, generally resulting in a 'first come, first served' outcome. As such, the participating schools did not differ from those that opted out in terms of school sector (i.e. private and public schools) or ethnic composition (as measured by the proportion of non-native pupils). The schools in this dataset encompass the entire range of ethnic composition, from schools having almost no non-native pupils to pure-minority-concentrated schools having 100 per cent non-native pupils. Within these schools, our research team asked all fifth-grade pupils present at school during our visit to fill out a written questionnaire. If the number of fifth-grade pupils was fewer than thirty, we surveyed all the sixth-grade pupils as well. The pupils completed the questionnaires in class in the presence of one or two

researchers and a teacher. The questionnaires were anonymous and were analysed in complete confidentiality.

Research design

Given that we are dealing with a clustered sample of pupils nested within schools and with data at different levels, namely, variables of ethnic school composition as the main determinants at the school level and national and sub-national identifications as outcome at pupil level, the use of hierarchical linear modelling is most appropriate (HLM6) (Raudenbush and Bryk 2002). As is common in multi-level analyses, we start by estimating unconditional models to determine the amount of variance that occurs among schools regarding national and sub-national identifications. Then, we add the main determinants to the model, controlling systematically for school features (size and sector) and pupil features (gender, grade, socioeconomic status). In the second model, we add ethnic heterogeneity/diversity at school level, and in the third model inter-ethnic friendship at pupil level. HLM provides only unstandardized gamma coefficients; to evaluate the strength of the associations, we standardize these coefficients. We carry out each analysis separately for native and non-native pupils, since the association between ethnic school composition and national/sub-national identification is hypothesized to be different for both groups.

Variables

Ethnic origin

Since all the analyses are performed separately for native and immigrant pupils, it is important to explain how we have made the distinction between them. The principal criterion was the birthplace of the pupils' grandmothers. If these data were missing, we considered their mothers' and fathers' birthplaces, as most non-native pupils in Flanders are second- or third-generation immigrants. We consider eleven broad ethnic groups: 1) native Belgians (46.7 per cent); 2) West Europeans including pupils of Dutch, French, or German origin (5.6 per cent); 3) South Europeans, including pupils of Italian or Spanish origin (6.6 per cent); 4) Turks (13 per cent); 5) Moroccans (15.6 per cent); 6) other North Africans (1 per cent); (7) East Europeans (5.8 per cent); (8) sub-Saharan Africans (1.8 per cent); 9) Middle Easterners (1.2 per cent); 10) Southeast Asians (1.7 per cent); 11) others (1.1 per cent). As is common practice, and

in line with the official Flemish definition of non-native groups, only West European origins (groups 1 and 2) were considered as producing native descent (see Van Houtte and Stevens 2009). As such, we created a dichotomous variable (0 = native, 1 = non-native).

Outcomes

To asses national (Belgian) and sub-national (Flemish) identification, we used a scale based on five items from the Collective Self-Esteem Scale (Luhtanen and Crocker 1992). Similar items were successfully used with same age children in previous studies in the Netherlands (Verkuyten 2001). The items are as follows: 'I consider myself as a Belgian / Fleming'; 'I often regret that I am Belgian/Flemish' (reverse scored); 'I am glad to be a Belgian / Fleming'; I often feel that Belgium/ Flanders is worthless' (reverse scored); 'I feel good about Belgium / Flanders'. There are five answer categories, ranging from 'absolutely do not agree' (1) to 'completely agree' (5). Responses to these five items were averaged. An exploratory factor analysis revealed that there was one underlying identity dimension for both scales. For the Belgian identification scale, the lowest loading is .62, with an eigenvalue of 2.76 (explaining 55.26 per cent of variance) and a Cronbach's alpha of .80. For the Flemish identification scale, the lowest loading is .66, with an eigenvalue of 2.95 (explaining 58.52 per cent of variance) and a Cronbach's alpha of .82. Table 1 demonstrates that, on average, native pupils have a significantly stronger Belgian identification ($M = 4.38$, $SD = 0.69$) and Flemish identification ($M = 4.22$, $SD = 0.83$) than non-native pupils, respectively ($M = 3.18$, $SD = 0.89$, $t = 37.99$, $p < 0.001$) and ($M = 3.13$, $SD = 0.92$; $t = 31.10$, $p < 0.001$).

School-level variables

As stated above, the school *ethnic composition* is measured by two indicators. First, we consider *ethnic minority concentration*, that is, the proportion of non-native respondents in a school in our database. On average, the proportion of non-native pupils is 51.50 per cent (SD = 34.16; Table 1). The minority concentration ranges from 2.63 per cent to 100 per cent non-native pupils.

The second indicator of a school's ethnic composition measures the *ethnic diversity/heterogeneity* within a school, expressed as the total number of different groups of non-natives, corrected by their size. We use an index of ethnic diversity, which is the Herfindahl index as used by Putnam (2007) multiplied by -1, since

Putnam in fact calculated an index of homogeneity, whereas we are interested in heterogeneity. The used index is calculated as:

$$(p_{\text{ethnic group 1}})^2+(p_{\text{ethnic group 2}})^2+\ldots+(p_{\text{ethnic group n}})^2.$$

We included the eleven ethnic groups listed above. The index has a range of -1 to 0 and a value of -1 implies no diversity at all, that is, only one ethnic group is enrolled in the school. A value that approaches zero means total diversity: all pupils in school have a different ethnic origin. In our data, on average, schools have a value of -0.46 (SD = 0.20).

We determined the *school size* from the total number of pupils, using data gathered from the Flemish Educational Department. The number of pupils varies from ninety-one in the smallest school to 526 in the largest. The schools catered for an average of 223 pupils (SD=104.03; Table 1).

Finally, the variable *school sector* distinguishes between thirty-three public schools (municipal schools and state schools; score 0) and thirty-five private schools (score 1). It should be noted that, in the Flemish educational system, no distinction is made between public schools and private schools with respect to state support.

Individual-level independent variables

Four individual-level variables were included in the multi-level analysis. Our research concentrated on the fifth- and sixth-grade pupils. Therefore, most of the respondents were age 11 (about 49 per cent) or 12 (about 36 per cent) in 2009. It should be noted that psychological research points out that this period is decisive for developing a national identity (Barrett, Wilson and Lyons 2003). Given the high multicollinearity between age and grade (Cramer's V = 0.64; $p < 0.000$), we had to choose between one of these two variables to enter the model. We opted for grade because the sample was unbalanced for grade.

The sample was equally divided with respect to *gender*, with 51.2 per cent of the respondents being female (male = 0, female = 1).

We measured the *socioeconomic status* (SES) of origin of the pupils by means of the occupational prestige of the father and mother (Erikson, Goldthorpe and Portocarero 1979); the higher of the two is used as an indicator of the SES of the family. The respondents have a mean SES of 4.44 (SD = 2.22). On average, the non-

native pupils have a significantly lower SES (M = 3.24, SD = 1.92) than the native pupils (M = 5.44, SD = 1.94; Table 1).

Finally, to measure pupils' *inter-ethnic friendship* we asked native respondents to state how many of their friends at school had a non-Belgian origin, and we asked non-native pupils to state how many of their friends at school had a Belgian origin. There were five possible answers: nobody (score 1), a few (score 2), half of them (score 3), most of them (score 4) and all of them (score 5). As can be seen from Table 1, on average native pupils have lower scores on inter-ethnic friendship (M = 1.95, SD = 0.84) than non-native pupils do (M = 2.66, SD = 1.17, t = 17.37, p < 0.001).

Table 1. Descriptive statistics for the dependent and independent variables: frequencies, means, standard deviations and results of t-test comparing native and non-native pupils

	All pupils		**Natives**		**Non-natives**		
Variables	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean difference**
School Level							
% School sector (1=private)	51.47 (N=68)	50.35	53.23 (N=62)	50.30	51.47 (N=68)	50.35	
School size	222.91 (N=68)	104.03	226.27 (N=62)	107.68	222.91 (N=68)	104.03	
% Non-Native	51.50 (N=68)	34.16	46.80 (N=62)	32.06	51.50 (N=68)	34.16	
Ethnic diversity	-0.46 (N=68)	0.20	-0.44 (N=62)	0.18	-0.46 (N=68)	0.20	
Pupil Level							
Grade (1=sixth)	29.98 (N=2845)	45.82	26.83 (N=1487)	44.32	33.43 (N=1358)	47.19	
Gende (1=female)	50.53 (N=2827)	49.98	52.12 (N=1479)	49.97	50.89 (N=1348)	50.01	
SES	4.44 (N=2676)	2.22	5.44 (N=1464)	1.94	3.24 (N=1212)	1.92	2.20 *t*=29.40***
Inter-ethnic friendship	2.28 (N=2561)	1.07	1.95 (N=1371)	0.84	2.66 (N=1190)	1.17	0.71 *t*=17.37***
National identification	3.82 (N=2621)	0.98	4.38 (N=1409)	0.69	3.18 (N=1212)	0.89	1.20 *t*=37.99***
Sub-national identification	3.72 (N=2522)	1.03	4.22 (N=1370)	0.83	3.13 (N=1152)	0.92	1.09 *t*=31.10***

*p< 0.05, **p < 0.01, ***p < 0.001

Results

Unconditional model

Does the school context matter with respect to pupils' identifications? To provide an answer to this question, Table 2 presents the variance components from the unconditional models. We are particularly interested in the explained variance at school level, computed as the between-school variance component divided by the sum of within-school and between-school variance ($\tau 0/(\sigma 2 + \tau 0)$). Consistent with other school-effect research (Teddlie and Reynolds 2000), most of the variation occurs within schools, between pupils. Nevertheless, justifying the need for a multi-level analysis, Table 2 indicates that significant amounts of the variances in pupils' identifications are situated at school level ($p < 0.001$). It is also clear that the school context is more relevant for non-native pupils than it is for native pupils' identifications: for non-natives around 12 per cent of the variance in national identification and 11 per cent variance in sub-national identification at school level, whereas the figure for natives is respectively around 3 per cent and 6 per cent (Table 2).

Table 2. Variance components for national (Belgian) and sub-national (Flemish) identification from the unconditional model

	Natives		**Non-natives**	
	Belgian identification	**Flemish identification**	**Belgian identification**	**Flemish identification**
Within-school variance σ^2	0.458	0.660	0.712	0.769
Between-school variance τ_0	0.013	0.039	0.095	0.092
% Variance between school	2.76%***	5.53%***	11.82%***	10.68%***

*p< 0.05, **p < 0.01, ***p < 0.001

National identification

With respect to national (Belgian) identifications of non-native pupils, Model 1b (Table 3) indicates that non-native pupils attending schools with a higher proportion of non-native pupils tend to exhibit lower levels of national identity ($\gamma = -3.20$; $p < 0.001$), controlling for school characteristics (size and sector) and pupil-level control

variables (grade, gender and SES). The addition of ethnic heterogeneity in the Model 2b does not change this picture, and ethnic heterogeneity is initially not significantly associated with Belgian identification of non-native pupils (γ = -0.066; p = 0.158; Table 3). However, as we consider inter-ethnic friendship in Model 3b, the relation between both the ethnic composition variables and national identification changes considerably. First, entering inter-ethnic friendship reduces the effect of minority concentration, which is no longer significant. Inter-ethnic friendship, in turn, is positively related to non-native pupils' Belgian identifications (γ = 0.298; p < 0.001). Second, ethnic diversity/heterogeneity becomes negatively related to national identifications of non-native pupils (Model 3b, Table 3). These findings are in line with the hypotheses which we derived from normative reference group theory (H1), constrict theory (H4) and the common ingroup identity model (CIIM) (H5) and disconfirm the hypothesis drawn from comparative reference group theory (H2): for non-native pupils ethnic minority concentration has a negative effect on their national identifications, which can be explained by the number of their inter-ethnic friendships. The negative impact of ethnic diversity/heterogeneity is suppressed by inter-ethnic friendship.

Considering the effects on native pupils, ethnic school composition variables are initially not significantly associated with their national identifications (Model 1a-2a, Table 3). However, in Model 3a, it becomes clear that there is a suppression effect caused by inter-ethnic friendship. After the addition of inter-ethnic friendship, ethnic minority concentration became significantly positively related to the national identifications of native pupils, while inter-ethnic friendship is negatively related to their national identifications (Model 3a, Table 3). This means that the increasing presence of non-native pupils at school positively impacts on this group's national identification, while inter-ethnic friendship tempers their national identification. Second, when inter-ethnic friendship is held constant, ethnic diversity/heterogeneity is negatively related to native pupils' Belgian identification, even though this effect is borderline (γ = -0.119; p = 0.065). These findings are in line with the hypotheses which we derived from comparative reference group theory (H3), constrict theory (H4) and CIIM (H5).

Finally, while the individual level influences are not the primary concern of this article, it is worth mentioning that SES is positively related only to native pupils' national identifications (a stronger Belgian identification for pupils with higher SES) and that non-native girls exhibit a higher level of Belgian identity than non-native

boys. Grade is not associated with Belgian identification (Table 3). When we entered age instead of grade (not shown here), there was no substantial difference with respect to the results.

Table 3. Influences on national (Belgian) identification: results of the multilevel analysis, standardized gamma coefficients with the standard errors in parentheses

	Natives			Non-natives		
	Model 1a	**Model 2a**	**Model 3a**	**Model 1b**	**Model 2b**	**Model 3b**
School Level						
School sector	-0.032 (0.048)	-0.041 (0.047)	-0.028 (0.042)	-0.059 (0.076)	-0.055 (0.074)	-0.051 (0.063)
School size	0.018 (0.000)	0.030 (0.000)	0.024 (0.000)	0.019 (0.000)	0.029 (0.000)	0.018 (0.000)
Minority concentration	0.011 (0.084)	0.104 (0.209)	0.247** (0.187)	-0.320*** (0.140)	-0.297*** (0.141)	-0.072 (0.139)
Ethnic diversity		-0.078 (0.274)	-0.119° (0.243)		-0.066 (0.207)	-0.082* (0.174)
Pupil Level						
Grade	0.023 (0.063)	0.019 (0.063)	0.017 (0.065)	0.067 (0.076)	0.064 (0.076)	0.084 (0.69)
Gender	-0.022 (0.035)	-0.022 (0.035)	-0.008 (0.036)	0.134*** (0.044)	0.133**** (0.044)	0.123*** (0.044)
SES	0.092** (0.011)	0.093** (0.011)	0.076* (0.011)	0.029 (0.014)	0.029 (0.014)	0.015 (0.014)
Interethnic friendship			-0.156*** (0.028)			0.298*** (0.029)

*p< 0.05, **p < 0.01, ***p < 0.001, °p = 0.065

Sub-national identification

Considering sub-national (Flemish) identifications of non-native pupils, the results are similar to those for their Belgian identifications (Table 4; Model 1b-3b): the strong negative impact of minority concentration in the first two models disappears in the third model, after controlling for inter-ethnic friendship, while a relatively small but significant negative effect of ethnic heterogeneity appears after the addition of inter-ethnic friendship (γ = -0.080; $p < 0.05$). This means that non-native pupils tend to exhibit higher levels of both national and sub-national identity in schools with a lower proportion of non-native pupils, and this finding can be explained by the increasing opportunities for inter-ethnic friendship in such schools.

In addition, in schools with a higher ethnic diversity/heterogeneity, non-native pupils have lower Flemish identifications when their inter-ethnic friendships are held constant. Analogous to the effects on Belgian identification, non-native pupils tend to have higher Flemish identification when they have more native friends, and non-native girls are more likely to have higher sub-national identifications than non-native boys (Model 1b-3b; Table 4). Again, these findings are in line with H1, H4 and H5, while disconfirming H2.

Table 4. Influences on sub-national (Flemish) identification: results of the multilevel analysis, standardized gamma coefficients with the standard errors in parentheses

	Natives			Non-natives		
	Model 1a	**Model 2a**	**Model 3a**	**Model 1b**	**Model 2b**	**Model 3b**
School Level						
School sector	0.015 (0.056)	0.006 (0.054)	0.011 (0.051)	-0.041 (0.073)	-0.040 (0.072)	-0.049 (0.063)
School size	0.044 (0.000)	0.057 (0.000)	0.043 (0.000)	0.050 (0.000)	0.052 (0.000)	0.017 (0.000)
Minority concentration	-0.075 (0.110)	0.023 (0.229)	0.067 (0.231)	-0.301*** (0.148)	-0.299*** (0.153)	-0.069 (0.139)
Ethnic diversity		-0.083 (0.313)	-0.083 (0.308)		-0.008 (0.213)	-0.080* (0.174)
Pupil Level						
Grade	0.051 (0.058)	0.049 (0.059)	0.040 (0.062)	0.130*** (0.075)	0.130*** (0.074)	0.081** (0.069)
Gender	-0.055 (0.042)	-0.055 (0.042)	-0.045 (0.046)	0.080** (0.051)	0.080** (0.051)	0.119*** (0.044)
SES	0.147*** (0.014)	0.150*** (0.014)	0.151*** (0.014)	0.089** (0.015)	0.088** (0.015)	0.015 (0.014)
Interethnic friendship			-0.071* (0.034)			0.288*** (0.029)

*p< 0.05, **p < 0.01, ***p < 0.001

With respect to native pupils' sub-national identifications, however, Table 4 indicates that there is no school-level variable significantly associated with native pupils' sub-national identifications. Hence, with respect to Flemish identification of native pupils, we could not find support for any of our hypotheses. The individual level effects were similar to those on Belgian identification: a higher SES is positively related to native pupils' Flemish identifications, and increase in inter-ethnic friendships is associated with decreasing Flemish identification (Table 4; Model 1a-3a).

Discussion and conclusion

In different European countries, policy-makers strive for the dispersal of non-native pupils, believing that the mixing of pupils of different ethnic groups will enhance the social integration and national identifications of youngsters. Given the lack of research supporting such policy practices and because theorists of identity emphasize the importance of contexts, the aim of this study was to explore the association between ethnic school composition and pupils' national and sub-national (Belgian and Flemish) identifications.

The results of this inquiry indeed indicate that the ethnic composition of schools is significantly related to national identifications and partly related to sub-national identifications of native and non-native pupils. First, ethnic minority concentration, as measured by the proportion of non-native pupils at school, has a negative impact on non-native pupils' Belgian and Flemish identifications, while it has a positive impact on native pupils' Belgian identifications. In other words, normative and comparative reference group processes prevail for non-natives and for natives respectively. An explanation of this differential effect could be derived from the general reference group theory, as it insists that normative reference processes are more likely to occur when individuals are striving for acceptance by the reference group (Merton 1968). Given the socially dominant position of natives within Flemish society, we assume that non-natives are striving to obtain recognition from the native group. This might explain why normative reference processes prevailed for non-natives. Furthermore, this study lends support to the prediction that we derived from the constrict theory: as ethnic heterogeneity/diversity rises at school level, the national identifications of native and non-native pupils decrease.

Four remarks should be added to what has been stated above. First, the relation between ethnic school composition variables and pupils' national and sub-national identifications is not a mechanical one, but, as expected, it is mediated by inter-ethnic friendships. In general, inter-ethnic friendship has a positive impact on non-native pupils' national and sub-national identifications, while it tempers the identifications of native pupils. Second, compared to the impact of ethnic minority concentration, the size of the effect of ethnic diversity/heterogeneity is much smaller. Third, ethnic diversity/heterogeneity decreases pupils' identifications only when inter-ethnic friendship is held constant. In other words, the negative impact of ethnic diversity/heterogeneity is suppressed by inter-ethnic friendship. This means that ethnic diversity/heterogeneity *as such* does not affect Flemish and Belgian

identifications; rather it impacts on them only if pupils do not engage in inter-ethnic friendship relations. Fourth, we did not find a significant association between any school-level variable and native pupils' Flemish identifications. This could be explained by the political situation in Flanders where Flemish identity is being used by far right-wing and racist politics. Therefore, native pupils' Flemish identifications are potentially expressed with a certain restraint to avert an association with racism. However, this *post hoc* explanation should be examined in further research.

While individual-level influences were not the primary concern of this article, an interesting finding is that non-native girls have higher Belgian and Flemish identifications than non-native boys. Maxwell (2009) argues that a higher level of perceived discrimination by the broader society contributes to lower levels of national identification, and research in Belgium shows that non-native men report more perceived discrimination than non-native women (De Rycke and Swyngedouw 1997). In other words, while we do not have a conclusive explanation for the gender gap with respect to national and sub-national identifications, we can hypothesize that perceived discrimination might explain this gap.

It is important to keep in mind a few limitations of this study. First, because the focus of the research project is on the impact of school ethnic composition, we considered the influence of only school context variables. However, other contexts (e.g. neighbourhood, country) might also contribute to youth's identifications and the position of the school on the school market might play a role as well (see Verhoeven 2002). Second, this investigation employs a limited measure of inter-ethnic friendship. We asked all pupils to state how many of their friends were natives and how many were many non-natives. A more elaborated technique would be to provide pupils a list with the names of all pupils at school and to ask them to indicate their best friends and friends. However, such a technique was unsuitable not only because the survey would have needed a higher time investment but also because it was completely anonymous. Third, we made a raw distinction between native and non-native pupils. This distinction neglects the ethnic differences *within* the non-native group. However, a separate analysis for each ethnic minority group would have harmed the reliability of our analysis, because the individual groups in our data are too small. While considering non-natives as one category is consistent with most of the previous studies conducted in Belgium (e.g. Jacobs, Rea and Teney 2009), future research should, if possible, make a distinction within the non-native groups.

In terms of educational policy, this article finds considerable support for the concerns about the negative impact of ethnic school segregation, but, most importantly, it also challenges these policies. On the one hand, our findings indicate that schools with a high minority concentration and high ethnic heterogeneity might indeed have a negative impact on non-native pupils' national and sub-national identifications. However, we demonstrate that these effects are mediated by their inter-ethnic friendships. While the school is an important context in which pupils make friends, opportunities outside the school for inter-ethnic friendships should not be neglected. Hence, besides school desegregation, policy-makers should consider stimulating inter-ethnic contact and friendship opportunities both inside and outside the school. At this point, we should also notice that cultivating national identification might be considered not to be a means of assimilation. As noted in our introduction section, national identities do not necessarily compete with ethnic identities and most people have multiple or hyphenated identities, which are very important with respect to pupils' well-being and educational achievement (see Phinney et al. 2001; Modood 2005). In this study, however, it was not feasible to measure all different ethnic identities, due to the large scale design of the research. However, we strongly recommend further studies that investigate the intersections between the school context and pupils' ethnic and national identities and examine the mediating role of inter-ethnic relationships.

Acknowledgements

This article was made possible through funding from the Research Foundation Flanders (FWO-project G.040908). The authors would like to thank two anonymous referees for their constructive comments. Special thanks to Paul Mahieu, Anneloes Vandenbroucke and Simon Boone for their helpful comments.

Hoofdstuk II: interetnisch klimaat en gepest worden

Ethnic school composition and peer victimization: a focus on the interethnic school climate[2]

Abstract

Does *de facto* school segregation have an impact on ethnic minority and majority pupils' chances of being victimized by their peers? Moreover, does the interethnic climate at school mediate the relationship between the ethnic school context and peer victimization? To answer these questions, this article examines the association between the ethnic composition of a school—as measured by the ethnic school concentration and the school's ethnic heterogeneity or diversity—and self-reported peer victimization. Multilevel analyses on data based on a survey of 2845 pupils (aged 10–12) in 68 Flemish primary schools revealed differential effects for natives and non-natives. In line with the imbalance of power thesis, and disconfirming the group threat theory, we find that non-native pupils report less peer victimization in schools with a higher minority concentration—that is, in schools with higher proportions of non-native pupils. Our findings indicate that this relationship is mediated by the interethnic school climate. In contrast, for native pupils, the concentration of ethnic minority students is not associated with peer victimization. We conclude by discussing the implications of these findings for the literature on interethnic relations and educational policy.

[2] Dit hoofdstuk is gepubliceerd in *International Journal of Intercultural Relations* (2011), *35* (4)

Introduction

In many western countries, there is a growing concern about ethnic school segregation, as many recent studies have shown that a high concentration of ethnic minority students is unfavorable for educational achievement (*for Belgium*: Jacobs, Rea, and Teney, 2009; *for France:* Felouzis, 2005; *for Germany*: Kristen, 2005; *for the Netherlands*: Westerbeek, 1999; Driessen, 2002; *for Sweden:* Szulkin and Jonsson, 2007; *for the United States:* Bankston and Caldas, 1996). Therefore, policy makers generally work towards the dispersal of immigrant and ethnic minority students (in this article we call these groups *non-native pupils*), believing that the mixing of students of different ethnic groups will enhance students' academic achievement and later occupational success (Burgess et al., 2005; Mahieu, 2002).

However, other studies have pointed to the flip side of this picture, arguing that school contexts with ethnically mixed student bodies might have unintended negative consequences for non-cognitive outcomes such as self-esteem and peer victimization (Gray-Little and Hafdahl, 2000; Hanish and Guerra, 2000). These non-cognitive outcomes are not only very important because pupils have the right to feel good at school, but also because they might have an impact on cognitive outcomes (Buhs and Ladd, 2001). In other words, while attending ethnically mixed schools might have a positive impact on the educational performance of minority students, there will be no or fewer academic advantages when these students do not feel at home—if, for instance, they are frequently bullied in such school contexts. Research has shown that pupils who are victimized by their peers are more likely to face school adjustment and achievement difficulties (Buhs, Ladd, and Gary, 2006). When educational policies do not take the potential adverse consequences of desegregation into account, they run the risk of failure. Therefore, educational research should identify and explain the potential negative effects of ethnic school composition on pupils' non-cognitive outcomes, in order to counteract them and make school desegregation efforts work.

In this study, we investigate the impact of *de facto* school segregation, as measured by the ethnic make-up of the school, on self-reported peer victimization. This paper is a unique contribution in three distinct ways. First, we consider three interdisciplinary theoretical frameworks, to achieve a better understanding of the association between the ethnic composition of a school and peer victimization. Specifically, we draw upon the imbalance of power thesis (Juvonen, Nishina, and Graham, 2006), group threat theory (Blalock, 1967), and constrict theory (Putnam,

2007). Secondly, we employ a further elaborated conceptualization of ethnic school composition, as we make a clear distinction between ethnic minority concentration (the proportion of non-natives at school) and ethnic diversity or heterogeneity. Previous studies tended to confuse these two distinct concepts. Third, in Flanders—the Dutch-speaking region comprising the northern part of Belgium, where the present study was conducted—research into the effects of ethnic school composition on peer victimization is simply non-existent. Through this paper, we aim to fill these research lacunae.

Ethnic composition and peer victimization

Providing a thorough review of the research on bullying behavior and peer victimization, Espelage and Swearer (2003) insist that victimization should be understood through a social-ecological lens: it is imperative that we investigate both the individual characteristics of students and the context-level variables that may be responsible for increased chances of peer victimization. While the bulk of the research examined bullying behavior at the individual level (e.g., Ando et al., 2005; Bowers et al., 1992; O'Moore and Kirkham, 2001), less studies have focused on the ecological school factors. These studies found that the impact of a school's ethnic composition is an important context variable in reference to peer victimization (Graham, 2006; Hanish and Guerra, 2000; Juvonen et al., 2001; Juvonen et al., 2006; Verkuyten and Thijs, 2002; Vervoort et al., 2010). However, school ethnic composition has been operationalized in different ways. Some studies assess this by examining the ethnic heterogeneity of schools. For instance, a study by Rowe, Almeida, and Jacobson (1999) finds that displays of aggression by adolescents (aged 12–18), which often accompany bullying behavior, are more likely to emerge in schools with more heterogeneity. But a number of different studies come to another conclusion. Graham (2006) and Juvonen et al. (2006), for example, demonstrated that pupils (aged 10–12) at more heterogeneous schools are less likely to be victimized, and that this holds for both for ethnic minority and majority students.

Other studies operationalize ethnic school composition as the proportion of non-natives in a school. Again, the empirical evidence here points in different directions. A Dutch study by Vervoort et al. (2010) found that school classes with higher proportions of non-natives saw more victimization for both natives and non-native pupils (aged 12–14) than school classes with fewer non-natives. Verkuyten and

Thijs (2002), in contrast, showed that native and non-native pupils (aged 10–14) felt more victimized when they attended schools classes with respectively fewer native and non-native peers. Research in the United States concurs with this latter study: pupils (aged 10–12) who are in a numerically minority position at school are at a heightened risk of being victimized (Juvonen et al., 2001). Hanish and Guerra (2000), in a study in the United States with elementary school pupils (aged 6–10), complete the confusion, as they show that schools where ethnic group sizes are roughly equal foster more victimization for White children and less for African-American children, and have no effect on the victimization rates of Hispanic children.

These findings show that the relation between ethnic school composition and peer victimization is a rather complex one, and that researchers have not come to an understanding of the direction of the relationship. Matters are complicated further because studies have not assessed this in a coherent manner. As discussed above, some studies operationalize ethnic composition as the proportion of students from a certain ethnic group—we call this the ethnic minority concentration in schools (e.g., Juvonen et al., 2001; Verkuyten and Thijs, 2002; Vervoort et al., 2010); however, others use a calculated index of *heterogeneity*—that is, the number of distinct ethnic groups within a body of students (e.g., Graham, 2006; Juvonen et al., 2006). This renders their results difficult to compare. Moreover, although this issue is clearly situated on two different levels—ethnic composition at the school level, and peer victimization at the student level—there are studies that use single-level techniques (e.g., Hanish and Guerra, 2000), though it is imperative to use multilevel analysis to resolve this (see Graham, 2006; Verkuyten and Thijs, 2002). It is important to address these matters in a coherent way, as it is possible that these differing choices are to some degree responsible for the divergent results.

Theoretical background

To get a better understanding of the relationship between the ethnic composition of a school and peer victimization, we will successively consider three theoretical frameworks: the imbalance of power thesis, group threat theory, and constrict theory.

The imbalance of power thesis

Victimization is defined as physical, verbal, or psychological abuse that takes place in or around school (Arora, 1996; Graham, 2006). Different authors argue that the most

defining characteristic of this form of peer harassment is an imbalance of power between the perpetrator and the victim. This definition has been used to explain the finding that peer victimization is more likely to occur in contexts where a certain ethnic group is much larger than another group (Graham, 2006; Juvonen et al., 2006). We refer to this explanation as the *imbalance of power thesis*. According to this view, the power of a certain group in a school context is partly determined by the relative number of group members. This is especially the case for ethnic groups, as a student's ethnicity itself can be a power marker (Vervoort et al., 2010). The implication of this view on victimization is that students are more likely to be victimized by other students when their ethnic group is much smaller the ethnic group of the perpetrators. As such, the proportion of natives and non-natives at school can be expected to be related to the rates of victimization of non-natives and natives, respectively. This is in accord with the observation that people who stand out in a certain setting—homosexual youths in a predominantly heterosexual setting, for example—are found to be more at risk of victimization (Nadeem and Graham, 2005; Wright et al., 1986). This latter viewpoint is also known as the *misfit theory.* Thus, we arrive at the following hypothesis:

H1 : A higher proportion of non-native pupils at school will result in lower levels of reported peer victimization for non-native pupils and higher levels of reported peer victimization for native pupils, and vice versa.

Group threat theory

The imbalance of power thesis counters the well-established theoretical approach of group threat theory (Blalock, 1967). This theory also posits that ethnic group size leads to dominance in a school context, but draws different conclusions. According to group threat theory, various ethnic groups want to gain and defend control over the school setting. Early group threat theory started from the viewpoint of members of the dominant ethnic group, stating that they feel threatened when the number of immigrants in a certain context is large (Blalock, 1967). As a reaction, more interethnic conflict ensues as the dominant group members defend their own status. This first version of the theory stated that interethnic group conflict rises linearly with increasing numbers of ethnic minority students (Blalock, 1967).

However, this assumption was questioned by certain researchers, who focused on all ethnic groups, not just the dominant group (Longshore, 1982; Goldsmith, 2004). They showed that the relation is curvilinear: feelings of ethnic threat are not more intense in contexts where ethnic minority pupils are overrepresented, but rather in contexts where the different ethnic groups are of roughly equal size, as the power structure is not clear in such situations. As a result, an interethnic conflict arises to determine which group controls the turf. Various studies have shown that antisocial behavior can be an effective means of gaining social dominance (Demanet, 2008; Hawley, 1999; Nadeem and Graham, 2005). As such, students of one ethnic group have a larger chance of being victimized in such fifty-fifty contexts, because their control over the school situation is contested by the other group. Hence, we can expect that the amount of victimization is largest in settings with equally sized ethnic groups, and this generates the following hypothesis:

H2 : When the proportion of non-native pupils at a school is around 50%, higher levels of reported peer victimization can be expected for both native and non-native pupils.

Constrict theory

The hypotheses described above are related to ethnic minority concentration—that is, to the proportion of non-native pupils at school. But, as already mentioned, while minority concentration is often confused with *ethnic diversity*, these are actually two distinct concepts and two distinct measurements of ethnic composition (see Chan and Birman, 2009; Putnam, 2007). Ethnic diversity or heterogeneity refers to the spectrum of ethnic difference in a given context. To conceptualize the impact of ethnic diversity at the school level, consider the constrict theory as described by Putnam (2007). According to this theory, the amount of ethnic diversity in a given context triggers social anomie or social isolation. In ethnically diverse environments, Putnam states, people will be less engaged in collective actions and will have fewer close friends, with declining solidarity and trust in others as result. It should be noted that Putnam states that this happens only in the short run; in the long term, there are wider benefits of ethnic diversity.

Constrict theory can apply to both an ethnic minority and the ethnic majority. The original constrict theory took neighborhoods as units of contextual analysis, while we will test it in a school context. Similarly, the original constrict theory does not link

ethnic diversity or heterogeneity *directly* to victimization, but rather to solidarity and trust relations. However, we hypothesize that declining solidarity and trust relations in schools with more heterogeneity might lead to increasing peer victimization:

H3 : Ethnic heterogeneity at the school level will increase reported peer victimization of both native and non-native pupils.

Interethnic school climate as mediator

The school-effects literature underlines the importance of a *mediation model.* These are mediator variables, such as school culture and climate, that might explain or suppress the impact of structural school variables such as ethnic composition (for reviews see Teddlie and Reynolds, 2000; Van Houtte, 2005). Similarly, the theories described above contend that the relation between ethnic composition and peer victimization is not a mechanical one, but is mediated. Particularly, the importance of interethnic relations is discussed. For instance, the imbalance of power thesis associated ethnic composition with ethnic groups having greater power at school; similarly, group threat theory related ethnic composition with emerging interethnic conflict, as different ethnic groups perceive each other as a threat to school control. In this paper, we conceptualize these interethnic relations at the school level as the *interethnic school climate,* measured by the amount of interethnic friendships and interethnic conflict at school. It should be noted that there exist other conceptualizations of climate as well (e.g. Dansby and Landis, 1996). Our conceptualization of climate is rather deduced from the climate notions within the school-effects literature (Van Houtte, 2005).

A number of studies have linked the ethnic makeup of a school to the amount of interethnic friendship and conflict that takes place inside the school walls (Chan and Birman, 2009; Fischer, 2008; Goldsmith, 2004; Van Houtte and Stevens, 2009). School climates characterized by conflict, in turn, can evoke more antisocial behavior in their students (Kasen et al., 1990; Kuperminc et al., 1997; Kuperminc et al., 2001). Hence, the relationship between ethnic school composition and interethnic school climate on the one hand, and the association between interethnic school climate and peer victimization on the other, leads us to the following mediation hypothesis:

H4: The impact of ethnic composition on reported peer victimization will be mediated by interethnic school climate—that is, by the amount of interethnic friendship and interethnic conflict at the school level.

Variables

Outcome

To measure the extent of peer victimization, we used a self-reported three-item scale (see Espelage and Swearer, 2003). More specifically, we asked pupils to state how frequently they (a) are bullied at school, (b) are called names at school, and (c) are excluded at school by their peers. There were five possible answers: (1) never, (2) almost never, (3) sometimes, (4) often, and (5) very often. Scores of these three items were averaged, and this scale yielded a Cronbach's alpha of 0.84 (see Table 1 for descriptive statistics). Justifying the need for multilevel analyses, we found that a significant amount of the variance in peer victimization is between schools (3.83%, $p < 0.001$), computed as the between-school variance component divided by the sum of within-school and between-school variance ($\tau_0/(\sigma^2 + \tau_0)$).

Individual-level variables

Four individual-level variables were included in the multilevel analyses. With respect to *ethnicity*, the principal criterion was the birthplace of the pupils' grandmothers. If these data were missing, we considered pupils' parents' birthplaces, as most non-native pupils in Flanders are second- or third-generation immigrants. We consider eleven broad ethnic groups: Native Belgians (46.7%), Western Europeans, including pupils of Dutch, French, or German origin (5.6%), Southern Europeans, including pupils of Italian or Spanish origin (6.6%), Turks (13.0%), Moroccans (15.6%), Other North Africans (1.0%), Eastern Europeans (5.8%), Sub-Saharan Africans (1.8%), Middle Easterners (1.2%), Southeast Asians (1.7%), Others (1.1%). As is common practice, and in line with the official Flemish definition of non-native groups, students of Western European origins (group 1 and 2) were considered to be of native descent (see Van Houtte and Stevens, 2009). As such, we created a dichotomous variable (0 = native, 1 = non-native) and 47.73% of our respondents are categorized as non-native (see Table 1). Our research concentrated on fifth- and sixth-grade pupils (with

1992 and 853 pupils studied, respectively). Therefore, most of the respondents were aged 11 (about 49%) or 12 (about 36%) in 2009. Given the strong association between age and grade (Cramer's V = 0.64; $p < 0.001$), we had to choose one of these two variables to enter into the model. Because the sample was unbalanced for grade, we opted for the latter. The sample was equally divided with respect to gender, with around 51% of the respondents being female (boy = 0, girl = 1). Finally, we measured the socioeconomic status (SES) of the pupils by means of the occupational prestige of the father and mother (Erikson, Goldthorpe, and Portocarero, 1979); the higher of the two is used as an indicator of the SES of the family. The respondents have a mean SES of 4.232 (SD = 2.372; Table 1).

School-level variables

As stated above, the school ethnic composition is measured by two indicators. First, we consider the *ethnic minority concentration*—that is, the proportion of non-native respondents in a school in our database. On average, the proportion of non-native pupils is 51.50%, and ranges from 2.631% to 100% non-native pupils (see Table 1). As part of the survey, the school administrators were asked to estimate the proportion of non-native pupils within their school. A Pearson correlation of 0.81 ($p < 0.001$) was calculated between the administrators' estimate and the proportion of non-native respondents to the survey; this validates the data-derived measure. Because Hypothesis 2 predicts a curvilinear relationship (i.e., peer victimization being most prevalent in schools with about 50% non-natives or natives), we enter a quadratic term of minority concentration as well, that is, we squared the original ethnic concentration. Grand mean centering is used to avoid multicollinearity.

The second indicator of ethnic school composition measures the *ethnic diversity or heterogeneity* within a school, expressed as the total number of different groups of non-natives, corrected by their size. Following Lancee and Dronkers (2011), we used as an index of ethnic diversity the Herfindahl index as used by Putnam (2007), though we multiplied this by −1, as Putnam (2007) in fact calculated an index of homogeneity, whereas we are interested in heterogeneity. The index used as is calculated as $(p_{\text{ethnic group 1}})^2 + (p_{\text{ethnic group 2}})^2 + \ldots + (p_{\text{ethnic group 11}})^2$. We included the eleven ethnic groups listed above. The index has a range of −1 to 0; a value of −1 implies no diversity at all—that is, there is only one ethnic group enrolled in the school. A value approaching zero means total diversity: each pupil in the school has a

different ethnic origin. In our data, on average, schools have a value of −0.461 (*SD* = 0.198, Table 1).

To conceptualize the *interethnic friendship climate*, we asked native respondents to state how many of their friends at school had a non-Belgian origin, and we asked non-native pupils to state how many of their friends at school had a Belgian origin. There were five possible answers: (1) nobody, (2) a few, (3) half of them, (4) most of them, and (5) all of them. To determine interethnic friendship climate scores, the pupil-level scores were aggregated by calculating the mean at the school level. In our data, on average, there was a mean school interethnic friendship climate value of 2.286 (*SD* = 0.399; Table 1).

Table 1. Descriptive statistics for variables: frequency, minimum, maximum, mean or proportion, standard deviation (SD)

	N	Min	Max	Mean or %	SD
School-level					
Ethnic concentration	68	2.631	100	51.500	34.164
Ethnic diversity	68	-0.875	-0.177	-0.461	0.198
Interethnic conflict climate	68	1.142	2.851	2.130	0.351
Interethnic friendship climate	68	1.121	3.102	2.286	0.399
Pupil-level					
Ethnicity (1 = non-native)	2845	0	1	47.73%	
Grade (1 = sixth)	2845	0	1	29.98%	
Gender (1 = girl)	2827	0	1	51.54%	
SES	2823	0	8	4.232	2.372
Outcome					
Peer victimization	2594	1	5	1.878	0.869

We used a similar measurement for *interethnic conflict climate*. We asked native respondents to state how often they have conflicts or quarrels at school with peers of non-Belgian origin, and we asked non-native pupils to state how often they have conflicts or quarrels at school with peers of Belgian origin. There were five possible answers: (1) never, (2) almost never, (3) sometimes, (4) often, and (5) very often. To determine climate scores, these interethnic conflict scores at the pupil level were aggregated by calculating the mean scores at the school level. As Table 1 shows, on average, schools have an interethnic conflict climate value of 2.130 (*SD* = 0.351). Interethnic conflict climate correlated 0.67 ($p < 0.001$) with interethnic friendship climate. While this positive correlation might sound surprising at first glance, previous studies also found such a positive relation between friendliness and conflict

(for a detailed investigation, see Goldsmith, 2004). For the sake of clarity, it should be noted that interethnic conflict climate and the outcome variable (i.e., peer victimization) are conceptually two distinct measures. While the former is explicitly related to interethnic quarrels and is situated at the school level, the outcome variable measures victimization in general and is situated at the pupil level. These two concepts also differ statistically, as the Pearson correlation between them is rather moderate (0.11; $p < 0.001$).

Results

Hypothesis 1

Model 1 (Table 2) indicates that for native pupils the ethnic school concentration is not significantly related to peer victimization ($\gamma^* = .000$, $p = .995$; γ^* is the standardized gamma coefficient). However, non-native pupils attending schools with a higher ethnic minority concentration tend to report less peer victimization than those attending schools with fewer non-natives ($\gamma^* = -.093$; $p < 0.05$). Hence, Hypothesis 1 is only supported with respect to non-native pupils. While the pupil-level effects are not the primary concern of this article, it is worth mentioning that non-native pupils, pupils in the sixth grade, and pupils with a higher SES report less victimization than native pupils, pupils in the fifth grade and pupils with lower SES.

Hypothesis 2

Model 1 (Table 2) indicates that for both groups of pupils, there is no evidence for a curvilinear relationship as the squared ethnic concentration variable is not significantly related to victimization. Hence, Hypothesis 2 is not supported.

Hypothesis 3

Unlike ethnic concentration, ethnic diversity/heterogeneity does not have an impact. As indicated by Model 2 (Table 2), our measurement of ethnic diversity/heterogeneity is not significantly related to pupils' peer victimization. Therefore, Hypothesis 3 is not supported.

Hypothesis 4

Hypothesis 4 states that the impact of the ethnic school context will be moderated by the interethnic school climate. Model 3 (Table 2) includes the amount of interethnic conflict and friendship at the school level. While interethnic conflict climate is positively related to peer victimization (γ^* =.164; p < .01), interethnic friendship climate is not significantly associated with peer victimization (γ^*=.074; p =.449). The cross-level interaction terms with ethnicity demonstrate that the impact of interethnic school climate is not different for natives and non-natives. Most importantly, the addition of the interethnic school climate variables alters the effect of minority concentration (see Model 1), as the impact of ethnic minority concentration for non-native pupils drops to an insignificant level (γ^* = .050; p =0.467). This suggests that, the interethnic climate of the school indeed mediates the association between ethnic minority concentration and peer victimization. Hence we find support for Hypothesis 4.

Table 2. School-level, cross-level and pupil-level influences on peer victimization (multilevel analysis): standardized gamma coefficients and standard errors.

	Model 1		**Model 2**		**Model 3**	
	y*	**SE**	**y***	**SE**	**y***	**SE**
School-level						
Ethnic concentration	.000	.055			-.091	.083
Squared ethnic concentration	-.090	.051			.086	.096
Ethnic diversity			.033	.031		
Interethnic conflict climate					.164**	.058
Interethnic friendship climate					.073	.096
Cross-level interactions with ethnicity						
Ethnic concentration	-.093*	.044			-.050	.066
Squared ethnic concentration	.085	.067			-.007	.130
Interethnic conflict climate					-.009	.051
Interethnic friendship climate					-.070	.078
Pupil-level						
Ethnicity (1= non-native)	-.108***	.037	-.095***	.026	-.047	.082
Grade (1 = sixth)	-.109***	.024	-.118***	.025	-.102***	.025
Gender (1= girl)	-.021	.020	-.022	.020	-.019	.020
SES	-.108***	.026	-.095***	.025	-.105***	.026

*p < 0.05, **p < 0.01, ***p < 0.001

Discussion and conclusion

The purpose of this study was to investigate the effects of *de facto* school segregation on peer victimization. Therefore, we examined the association between the ethnic composition of a school and the extent of pupils' reported peer victimization. The merit of this study is twofold: we made contributions to the literature on peer victimization and provided new insights for educational policies on segregation. Our findings were noticeably different for natives and non-native pupils; thus, we discuss these findings separately for both groups, together with their implications for educational policy.

Non-native pupils

With regard to non-native pupils, our results suggest that there is a negative relationship between the proportions of non-natives at school—we called this the *ethnic minority concentration*—and self-reported peer victimization. Thus, we find support for the imbalance of power thesis (Hypothesis 1). In contrast, none of our evidence favors the group threat theory (Hypothesis 2), that is, in schools where the proportion of native and non-native pupils is roughly equal, no higher rates of peer victimization are reported. We found no support for Hypothesis 3, which we derived from the constrict theory, as ethnic diversity/heterogeneity is not associated with peer victimization. Further, our findings partly endorse Hypothesis 4. The amount of interethnic conflict at the school level is responsible for the association between ethnic minority concentration and peer victimization; however, our second measurement of interethnic school climate, the amount of interethnic friendship, was not related to self-reported peer victimization.

These findings have considerable implications for educational policy. Policy makers generally work towards the dispersal of non-native pupils to improve their academic achievement; more generally, there is a preference for non-segregated schools. However, this study revealed that, in school settings with a lower ethnic minority concentration, non-native pupils might be at higher risk of being victimized than in schools where non-natives constitute a numerical majority. This does not mean that school desegregation automatically leads to higher rates of victimization for non-native pupils. In contrast, we showed that, if the interethnic school climate is taken into account, ethnic composition does not impact peer victimization. Therefore, if policy-makers strive for educational desegregation—in order to improve academic

achievement, for instance—they should also consider improving interethnic school climate in desegregated schools.

Native pupils

With respect to native pupils, the results indicate that ethnic composition variables are not related to reported peer victimization. Therefore, we should ask why the imbalance of power thesis (Hypothesis 1) holds true for non-natives only. One potential post hoc explanation: even when native pupils constitute a proportional minority in the school, they are still the numerical majority and socially dominant group within the broader society. Hence, their lack of numerical power in those school settings is probably compensated by their social and numerical majority position in the broader society (for a more elaborated discussion, see Van Houtte and Stevens, 2009; Verkuyten and Thijs, 2002).

These findings should also be linked to educational desegregation policies. Currently, there are government-subsidized programs to make ethnic minority concentrated schools more attractive for middle-class native parents (e.g., Albertijn and Smeyers, 2009). It is argued that middle-class native parents avoid enrolling their children in such schools because they are concerned about the academic achievement and well-being of their children. As most research on ethnic segregation has focused on the impact on non-native pupils, it is not clear whether native parents are rightfully concerned. However, this study demonstrated that neither ethnic minority concentration nor ethnic heterogeneity have an effect on the self-reported victimization rates of native pupils.

Limitations of this study, and directions for future research

There are previous studies that have focused on the impact of the ethnic school context on peer victimization as well. These studies investigated peer victimization of pupils in the same age range as our sample (Graham, 2006; Juvonen et al., 2006; Verkuyten and Thijs, 2002), in older pupils (Rowe et al., 1999; Vervoort et al., 2010) and in younger pupils (Hanish and Guerra, 2000). The results of studies by Hanish and Guerra (2000), Verkuyten and Thijs (2002) and Vervoort et al. (2010) equally found support for the imbalance of power thesis. However, it should be noted that Verkuyten and Thijs (2002) studied the impact on *racist* peer victimization,

while other studies, including the present study, have focused on (non-ethnic) peer victimization. Nevertheless, it might be the case that the ethnic school context is more strongly associated with racist peer victimization than it is associated with (non-ethnic) victimization in general. Hence, we suggest that future research should measure the effects on both, non-ethnic victimization and racist victimization. With respect to our second measurement of ethnic school context, the ethnic heterogeneity, the findings of this study contradict some previous studies, which found higher or lower levels of victimization in more heterogeneous school settings (Juvonen et al., 2006; Rowe et al., 1999).

It is important to keep in mind a few weaknesses of this study. First, we made a raw distinction between native and non-native pupils. This distinction neglects the ethnic differences *within* the non-native group. However, a separate analysis for each ethnic minority group would have harmed the reliability of our analysis, because the individual groups in our data are too small. Nevertheless, to be sure that the native and non-native categories are internally more or less homogenous, we did not include children from West-European origins within the non-native category, as West-Europeans are commonly considered to be more comparable to natives. While considering non-natives as one category is consistent with most of the previous studies conducted in Belgium and the Netherlands (e.g., Jacobs et al., 2009; Vervoort et al., 2010), future research should, if possible, make a distinction within the non-native groups. A second potential drawback of this study is that we only considered the influence of school-level and pupil-level variables and failed to include any class-level variables. However, we did this because our sample was not suitable for running a three-level, random-intercept, random-slope model, and the focus of the research project is on the impact of school ethnic composition. Third, this investigation employs a limited measure of interethnic friendship. We asked all pupils to state how many of their friends were natives and non-natives, and provided them with five answering categories (ranging from “none of them” to “all of them”). However, with this measure we cannot control for the true size of interethnic friendship networks. A more elaborated technique would be to provide pupils a list with the names of all pupils at school and to ask to indicate their friends. However, such a technique was unsuitable not only because the survey would have needed a higher time investment, but mainly because it was completely anonymous.

With regard to the literature, this study has employed a more elaborated conceptualization of schools’ ethnic composition, as we examined both the impact of

ethnic minority concentration and ethnic diversity/heterogeneity. We suggest that future research on the effects of compositional school features makes a clear distinction between these two ethnic composition variables. Furthermore, we go beyond a mechanical understanding of the association between the ethnic school composition and peer victimization, as we focused on the mediating relations—more specifically, on the role of interethnic school climate. We found that schools characterized by higher degrees of interethnic conflict evoke more peer victimization, and that interethnic conflict climate accounts for the impact of ethnic minority concentration on peer victimization in non-native pupils. However, while such aggregated climate variables are useful to understand how individual pupils are affected by structural school characteristics, they do not fully capture the motives of individual bullies. Hence, we suggest that future research should identify how the interethnic climate of the school is related to individual motives of perpetrators as well.

Acknowledgments

This article was made possible through funding from the Research Foundation Flanders (FWO-project G.040908). The authors would like to thank two anonymous referees for their constructive comments. Special thanks to Paul Mahieu, Anneloes Vandenbroucke, Ward Nouwen and Simon Boone for their helpful comments.

Hoofdstuk III: leerling-leerkracht-relaties en zelfwaardering

Ethnic school segregation and self-esteem: the role of teacher-pupil relationships[3]

Abstract

We examine whether school segregation is related to pupils' global self-esteem and whether this association is mediated by teacher-pupil relationships. Multilevel analyses based on a survey of 2,845 pupils (aged 10–12) in 68 primary schools in Belgian urban areas reveal that, for native-Belgian pupils, a higher proportion of immigrants at school is associated with increasing self-esteem. Initially no such association was found for immigrant pupils, as the effect of schools' ethnic composition on their self-esteem was suppressed by teacher-pupil relationships. For both groups, experiences of supportive relationships with teachers were largely associated with self-esteem.

[3] Dit hoofdstuk is in review in *Urban Education*

Introduction

The assumption that ethnic minority children tended to have lower self-esteem in ethnically/racially segregated schools was a central argument of the early advocates of desegregation policies, one of the key motives of the historical decision by the United States Supreme Court in *Brown v. Board of Education* that ended *de jure* school segregation (Bankston & Zhou, 2002; Zirkel, 2005). Paradoxically, from the late sixties onwards, sociological and educational research has repeatedly demonstrated that ethnic minority children (mostly African-American) in fact exhibit equal or even higher self-esteem in *de facto* segregated schools than in desegregated schools, i.e. schools with a higher share of ethnic majority (mostly White) pupils (Rosenberg & Simmons, 1972; Stephan, 1978; Drury, 1980; Powell, 1985; Gray-Little & Hafdahl, 2000). This evidence of the potential harmful consequences of school desegregation on self-esteem has been used as a major argument *against* school desegregation policies (see Bankston & Zhou, 2002). After all, self-esteem is an essential part of students' quality of school life and is related to improved socio-emotional adjustment and increased community involvement, academic performance and aspirations (Yogev & Ilan, 1987; Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995; Hoffman, Knight, & Wallach, 2007; Pullmann & Allik, 2008).

To explain the relationship between school composition and pupils' self-concepts, previous studies mainly considered mutual social comparisons among pupils (*e.g.* Drury, 1980; Marsh, 1987; Gray-Little & Carels, 1997). However, theorists of self-esteem emphasize that social comparison is just one of the various sources of self-esteem. For instance, social and emotional relationships might also be related to ones self-esteem (Brutsaert, 1990). In this study, we argue that within the school context the social relationships between teachers and pupils (hereafter: *teacher-pupil relationships*) might play a decisive role as these relationships might have an impact on pupils' global self-esteem. Previous studies have demonstrated that teacher-pupil relationships are dependent on schools' compositional characteristics (Crosnoe, Johnson & Elder, 2004; Van Maele & Van Houtte, 2011) and other studies have shown that teacher-pupil relationships, in turn, have an impact on pupils' self-esteem (Roeser & Eccles, 1998; Reddy, Rhodes, & Mulhall, 2003). Yet we do not know of any study that has considered the mediating role of teacher-pupil relationships for the association between ethnic school composition and pupils' self-esteem. Moreover, most studies on the effects of ethnic school composition on self-esteem are conducted in the US, and they mostly consider the impact on ethnic minority pupils' self-esteem (for an

exceptional study in the Netherlands, see Verkuyten & Thijs, 2004). Hence in Flanders, the Dutch-speaking part of Belgium where the present study was conducted, such research is similarly nonexistent. With this paper we aim to fill these research lacunae. More specifically, using multilevel techniques, we will examine the impact of ethnic school composition on ethnic majority (native Belgian) and ethnic minority (immigrant) pupils, and the mediating role of teacher-pupil relationships.

Ethnic composition and global self-esteem

Global self-esteem is defined as an individual's overall positive evaluation of the self, and it is highly dependent on the contextual characteristics of one's social environment (Rosenberg & Simmons, 1972; Rosenberg et al., 1995). When it comes to children, the school context can hardly be neglected, since children spend almost half their waking hours at school. In this study, we focus on the impacts of schools' ethnic composition of on global self-esteem. Regarding this composition, we make a distinction between two different conceptualizations, *i.e.* ethnic minority concentration and ethnic heterogeneity (see Chan & Birman, 2009). Ethnic minority concentration refers to the proportion of ethnic minorities in a given school. Ethnic heterogeneity or diversity, on the other hand, refers to the degree of ethnic differences in a given context. The latter is a 'color-blind' conceptualization of ethnic composition. For instance, School A with 90 per cent Black students and 10 per cent White students, is equally ethnically heterogeneous to School B with 10 per cent Black and 90 per cent White students, although School A has a higher ethnic minority concentration than School B. Theoretically seen and regarding previous studies (cf. infra), these two conceptualizations of ethnic composition will generate different results regarding teacher-pupil relationships and pupils' self-esteem.

Most previous studies that have investigated the impact of ethnic minority concentration found *higher* self-esteem among ethnic minority children in schools with a higher ethnic minority concentration than those in schools with a lower ethnic minority concentration (see meta-reviews by St.John, 1975; Stephan, 1978; Gray-Little & Hafdahl, 2000). Most of these studies were conducted among African-Americans so that studies of the effects of ethnic school composition on the self-esteem of ethnic *majority* pupils are less common. One notable exception is a study in the Netherlands by Verkuyten & Thijs (2004). In contrast to the research from the US, this study found that ethnic composition was only related to the global self-

esteem of ethnic majority (native Dutch) pupils: in schools with a higher proportion of ethnic minority pupils higher self-esteem was found for native Dutch pupils, while ethnic composition was not related to the self-esteem of ethnic minority (immigrant) pupils (Turkish, Moroccan and Surinamese). The schools' ethnic heterogeneity, on the other hand, was not found to be related to pupils' self-esteem (ibid).

In order to explain the effects of school composition, past research has focused mainly on mutual comparison among pupils. Drawing upon social comparison theory (Festinger 1954) and reference group theory (Merton, 1968), they posit that students' self-concept is dependent on the comparisons they make with their schoolmates. For instance, they argue that African-American students in segregated environments are partly insulated from cross-racial comparisons that potentially undermine their self-esteem in desegregated schools, *i.e.* schools with a lower concentration of African-Americans (see Drury, 1980; Gray-Little & Carels, 1997). Similarly, the *frog pond theory* of Davis (1966) and *big-fish–little-pond effect* of Marsh (1987, 1990) insist that the impact of school composition on students' self-concepts can (partly) be explained by mutual comparison among pupils. In other words, in order to explain the impact of compositional school features, past research has mainly focused on pupils' *peer group* as being salient for their self-esteem. However, schoolmates are not the only social actors in the school context who might have an influence on pupils' self-esteem. Next, we explore the role of teacher-pupil relationships.

Teacher-pupil relationships and self-esteem

From the eighties onwards, educational researchers investigated the impact of teacher-pupil relationships on pupils' school adjustment. Studies on this subject relied mainly on the theoretical frameworks of the attachment theory (Bowlby, 1982) and theory of social capital (Coleman, 1988). Originally focusing on parent-child relationships, attachment theory insists that a supportive, warm and secure relationships with adult caregivers have a positive impact on the socio-emotional development of a child (Bowlby, 1982). Drawing on attachment theory, empirical studies reveal that supportive and close relations between teachers and pupils contribute positively to pupils' academic performance, well-being and school involvement, in contrast to teacher-pupil relationships of conflict and dependency (Birch & Ladd, 1997; Wentzel, 1998; Murray & Greenberg, 2000; Hamre & Pianta, 2001; Buyse, Verschueren, Verachtert, & Van Damme, 2009). Whereas this

attachment theory is primarily used by educational psychologists, sociologically oriented researchers rely on Coleman's social capital theory as a basis for understanding teacher-pupil relationship patterns and their impact on pupils' outcomes (see Muller, 2001; Crosnoe et al., 2004; Van Maele & Van Houtte, 2011). Put simply, according to Coleman (1988) social relationships can create social capital where they function as resources for individuals, and it is less likely that these resources would be present if these relationships did not exist. Similarly to relationships between parents and children, relationships between teachers and pupils are a crucial source of intergenerational bonding for the children. Moreover the potential social capital present in a teacher-pupil relationship is quite irreplaceable given the central decisive role of the teacher in the educational system (see Muller, 2001). Applying the framework of social capital theory, empirical research has consistently found support for the argument that positive teacher-student bonds have a positive impact on pupils' outcomes, such as academic motivation and performance (Goodenow, 1993; Muller, 2001). More importantly, previous studies also demonstrated that a favorable teacher-pupil relationship is positively related to pupils' self-esteem (Ryan, Stiller & Lynch, 1994; Harter, 1996; Roeser & Eccles, 1998; Reddy et al., 2003). These authors have investigated different aspects of teacher-pupil relationships. For example, Reddy and colleagues (2003) find that *teacher support*, measured by students' perceptions of received support, was positively related to students' self-esteem. Roeser and Eccles (1998) show that a positive *teacher regard,* measured by students' perception of what their teachers thinks about them, predicts a significant increase in self-esteem. Harter (1996) reports that teacher support, in terms of perceived *teacher approval* by pupils*,* correlates highly with pupils' self esteem.

Ethnic composition and teacher-pupil relationships

The teacher-pupil relationships described above might, in turn, be dependent on the ethnic composition of the student body, and thus mediate the impact of ethnic school composition on pupils' self-esteem. With respect to this composition, we have already mentioned the important distinction between ethnic minority concentration of schools and the ethnic heterogeneity of schools. Regarding the association between ethnic minority concentration and teacher-pupil relationships, the 'functional substitution' perspective can be considered (see Mirowsky & Ross, 1989). According to the

'functional substitution' concept any given source of social support is more important for individuals' functioning in contexts with fewer overall social resources (see Mirowsky & Ross, 1989; Cooper & Crosnoe, 2007). With regard to schools' ethnic minority concentration, previous studies have demonstrated that ethnic minority pupils develop less supportive relationships with their peers in schools with a lower share of ethnic minorities, and that the reverse holds true for ethnic majority pupils. For instance, different studies have revealed that pupils from a particular ethnic group are more victimized by their peers in schools where the size of their ethnic group is smaller (Juvonen, Nishina, & Graham, 2001; Verkuyten & Thijs, 2002, Agirdag, Demanet, Van Houtte & Van Avermaet, 2011). As such, ethnic minority pupils in schools with a lower ethnic minority concentration might show improved teacher-pupil relationships as a compensation for the less supportive relationships with their peers in such schools, with the reverse being likely for ethnic majority pupils.

Regarding the association between ethnic heterogeneity and teacher-pupil relationships, we consider 'constrict theory' as stated by Putnam (2007). According to constrict theory, the degree of ethnic heterogeneity or diversity in a given context reduces the amount of social relationships and bonding with others: 'people living in ethnically diverse settings appear to "hunker down', that is, to pull in like a turtle' (Putnam, 2007, p. 149). It should be noted that Putnam states that this tendency applies only to the short run; in the long term, the wider benefits of ethnic diversity are evident. However, in the short term, ethnically diverse settings are likely to be associated with a decrease in social relationships for individuals in such contexts. The original constrict theory takes neighborhoods as units of contextual analysis, while more recently has also been applied in the school context (*e.g.* Agirdag, Demanet et al*.,* 2011). Based on the premises of the constrict theory, ethnic school heterogeneity can be expected to negatively impact teacher-pupil relationships since pupils in such schools are likely to develop fewer social relationships in general.

The vast majority of quantitative research into the effects of ethnic school composition deals only with its impact on pupils' academic achievement outcomes (for a review see Thrupp, Lauder & Robinson, 2002), and only a small number of large-scale quantitative studies have focused on the effect of ethnic school composition on teacher-pupil relationships (Crosnoe et al., 2004; Van Maele & Van Houtte, 2011). These few studies found that the ethnic context of the school has a significant effect on these relationships. Crosnoe and colleagues (2004) showed that students reported

more bonding with their teachers in schools with less ethnic heterogeneity, that is, in schools with a greater match between individual students and the student body. Van Maele and Van Houtte (2010) have demonstrated that in schools with a higher ethnic minority concentration teachers tend to report less trust in pupils.

Current study

In sum, there are theoretical arguments and empirical evidence that ethnic school composition, either measured by the ethnic concentration or ethnic heterogeneity, is related to teacher-pupil relationships. In addition, these teacher-pupil relationships, in turn, can be expected to have an impact on pupils' self-esteem. Based on this premise, we can expect that teacher-pupil relationships will mediate the effect of ethnic school composition on pupils' self-esteem. To be more specific, we will investigate the mediating role of *teacher support*, which is 'the extent to which students believe teachers value and establish personal relationships with them' (Ryan & Patrick 2001, p.440).

Most of the previous studies examine the teacher-pupil relationship only on the individual level. However, as noted by Buyse and colleagues (2009) the average level of teacher-pupil relationship (they call this the 'relational climate') might have an impact as well, over and above individual-level teacher-pupil relationships. Pupils do not go to school in a social vacuum, but are affected by their peers' beliefs as well. Therefore, much like pupils' individual beliefs about teacher support, their collectively shared beliefs (*i.e.* their culture) about teacher support in their school, hence pupils' *teacher support culture* in schools, can be expected to have a positive impact on pupils' self-esteem; we refer to Van Houtte (2005) for an elaborated discussion of the concept of *school culture* as distinct from *school climate*. In other words, not only individual pupils' beliefs about their relationships with their teachers matter, but also the beliefs of their peer group might play a role. Therefore, in this study we will also focus on pupils' collectively shared beliefs about their relationships with their teacher at the school level. To be more specific, at the school level, we investigate the umpact of teacher support culture, that is, the average level of perceived teacher support that is shared by a peer group within a school.

Methods

Sample

We used data gathered during the academic year 2008-2009, from 2,845 pupils (mean age 11.61) in a sample of 68 primary schools in Flanders as part of the Segregation in Primary Education in Flanders (SIPEF) project. Multistage sampling was conducted. In the first instance, in order to encompass the entire range of ethnic composition, we selected three cities in Flanders that had relatively ethnically diverse populations. Second, using data gathered from the Flemish Educational Department, we chose 116 primary schools within these selected cities and asked them to participate; 54% of the schools agreed to do so. The schools in the dataset encompassed the entire range of ethnic composition, from those with almost no non-Western immigrant pupils to those composed entirely of non-Western immigrant pupils. In all the schools that agreed to participate, our research team conducted a questionnaire with all the fifth-grade pupils present at the school during our visit. If there were fewer than 30 fifth-grade pupils present then we surveyed all the sixth-grade pupils as well.

Research design

Because the dataset was made up of a clustered sample of pupils nested within schools and involved variables at different levels (pupil-level and school-level), the use of hierarchical linear modeling (multilevel modeling) is most appropriate. More specifically, we used two-level, random intercept, random slope multilevel modeling (SAS Proc Mixed, Singer, 1998). As Proc Mixed provides only unstandardized gamma coefficients, we standardize these coefficients to evaluate the strength of the associations. Standardization is achieved by multiplying the unstandardized coefficients by the standard deviation of the explanatory variable and dividing it by the standard deviation of the dependent variable.

To get a clear view on the distinct determinants for immigrant and native Belgian students, we carried out each analysis separately for both groups. When relevant or needed, for instance, to assess whether or not we are dealing with an interaction of ethnic composition and immigrant background, coefficients for both groups are compared by means of a *t*-test (see Jaccard, Turrisi, and Wann, 1990). While the group comparisons could also be examined by including interaction terms within the same model, this approach would result in a considerable loss of power of

the analysis: only in order to asses the group differences for the two ethnic composition variables, more than six cross-level interaction terms needed to be included. Therefore, doing analysis separately for both groups and statistically comparing regression coefficients is a far more straightforward approach (see also Van Houtte and Stevens, 2009).

As is common in multilevel analyses, we began by estimating the unconditional models to determine the amount of variance in global self-esteem that occurs among schools for both native Belgian and immigrant pupils. We added the variables stepwise into the model to ensure that we had a clear understanding of mediational effects. We began by examining the effect of ethnic school composition variables, *i.e.* ethnic school composition and ethnic heterogeneity.

To exclude selection effects, we included control variables in the second model. At the school level we also controlled for school sector and school size. Initially, we aimed to control for SES composition as well. However, there was a high correlation between schools' SES and ethnic composition (Pearson r = -0.89). Including both variables in the same model would thus cause multicollinearity problems. As the focus of this study is on the impact of ethnic school composition, we decided to exclude SES composition. Nevertheless, it should be noted that we controlled for SES differences at the individual level, as well as for gender, grade and academic achievement.

In the third model, we entered teacher support (individual level) and teacher support culture (school level) to evaluate whether mediational relationships exist. In variables measured by means of a scale, responses were imputed for missing values by way of item correlation substitution: a missing value for one item is replaced by the value of the item correlating most highly with that item (Huisman, 2000). Remaining missing values and missing values in other variables were handled in the analyses by run-time deletion.

Variables

Native Belgian / Immigrant dichotomy

Because all the analyses are performed separately for native Belgian and immigrant pupils, it is important to explain how we distinguished between these two groups. Following the official definition of non-natives groups in Belgium and the Netherlands, the principal criterion was the birthplace of the pupils' grandmothers

(see Phalet & Swnygedouw, 2003). If these data were missing, we considered pupils' parents' birthplaces, as most non-native pupils in Flanders are second- or third-generation immigrants. We consider 11 broad ethnic groups: (1) Native Belgians (46.7%), (2) Western Europeans, including pupils of Dutch, French, or German origin (5.6%), (3) Southern Europeans, including pupils of Italian or Spanish origin (6.6%), (4)Turks (13.0%), (5) Moroccans (15.6%), (6) Other North Africans (1.0%), (7) Eastern Europeans (5.8%), (8) Sub-Saharan Africans (1.8%), (9) Middle Easterners (1.2%), (10) Southeast Asians (1.7%), (11) Others (1.1%). As is common practice, and in line with the official Flemish definition of non-native groups, only students of Western European origins (groups 1 and 2) were considered to be of native descent. Therefore we created a dichotomous variable (0 = native, 1 = immigrant).

Pupil level variables

The dependent variable, *global self-esteem*, is measured by Rosenberg Self-Concept Scale (Rosenberg & Simmons, 1972). The scale consists of 12 items with five possible answers ranging from 'absolutely disagree' (Score 1) to 'totally agree' (Score 5). Examples of items are 'I accept myself as I am' and 'In general, I am content with myself'. In our analysis we use the means score. The scale yielded a Cronbach's alpha of 0.80. Mean score for native pupils is 3.824 (*SD* = 0.631) and for immigrant pupils 3.756. (*SD* = 0.615; see Table 1). A Q-Q plot revealed that global self-esteem was highly normally distributed.

Teacher support is measured by a scale consisting of 10 items (see Appendix 1), inspired by Brutsaert (2001) and Goodenow (1993), with five possible answers ranging from 'absolutely disagree' (Score 1) to 'totally agree' (Score 5). A multilevel confirmatory factor analysis (Muthén, 1994) revealed satisfactory fit for a one factor model. (Root Mean Square Error Of Approximation (RMSEA) = 0.028; Standardised Root Mean Square Residual (SRMR) = 0.032; Cronbach's alpha = 0.847). In our analysis we use the mean score, which ranges from 1.10 to 5.0. Mean score for native pupils is 4.096 (*SD* = 0.632) and mean score for immigrant pupils is 3.944 (*SD* = 0.664; see Table 1).

At the pupil level we controlled for *grade* (0 = fifth, 1 = sixth), *gender* (0 = boy; 1 = girl), *socioeconomic status* (SES), *academic achievement* and for immigrant pupils also for *ethnicity*. The SES of the pupils is measured by means of the occupational prestige of the father and mother (Erikson, Goldthorpe, & Portocarero, 1979); the

higher of the two is used as an indicator of the SES of the family. Native respondents have a mean SES of 5.437 (*SD* = 1.996) and immigrant pupils' mean SES score is 2.903 (*SD* =2.018; see Table 1).

Academic achievement is measured by a test developed by Dudal & Deloof (2004), which is based on Flemish educational attainment levels outlined for students in the fifth grade of their primary education. The test consists of 60 items, and it covers elementary arithmetic, problem solving, fractions, point numbers, and long division. For each pupil, we calculated Item Response Theory (IRT) scores, ranging from -2.967 to 2.396 (*Mean* = 0.001; *SD* = 0.999). The mean score for native pupils is 0.221 (*SD* = 0.914) and for immigrant pupils it is -0.233 (*SD* = 0.882; see Table 1). The Person Separation Index, *i.e.* the equivalent for the alpha reliability score in IRT models, is 0.95 for this test.

Finally, for immigrant pupils we controlled for ethnicity. Because the group sizes of the above listed ethnic groups are rather low, we distinguished three groups: we created two dummy variables for the two numerically largest immigrant groups in Belgium, *i.e.* (1) Turks (27%) and (2) Moroccans (33%), and other immigrant pupils are categorized as (3) 'others' (40%; see Table 1).

School level variables

Two measures of *ethnic school composition* are included. First, we calculated the *ethnic minority concentration* by means of the proportion of (non-Western) immigrant respondents in a school in our database (see above). On average, the proportion of immigrant pupils is 51.50 % (*SD* = 34.16), and ranges from 2.631% to 100%. In six schools, there were no native Belgian pupils, which reduced the number of schools for native pupils from 68 to 62 (see Table 1). The second indicator of ethnic school composition measures the *ethnic diversity or heterogeneity* within a school, expressed as the total number of different groups of non-natives, corrected by their size. Following Lancee and Dronkers (2011), we used as an index of ethnic diversity the Herfindahl Index (H.I.) as used by Putnam (2007), though we multiplied this by -1, as Putnam (2007) in fact calculated an index of homogeneity, whereas we are interested in heterogeneity. The index used as is calculated as $(p_{\text{ethnic group 1}})^2 + (p_{\text{ethnic group 2}})^2 + \ldots + (p_{\text{ethnic group n}})^2$. We included the eleven ethnic groups listed above. The H.I. has a range of -1 to 0; a value of -1 implies no diversity at all—that is, there is only one ethnic group enrolled in the school. A value approaching zero means total diversity: each pupil in the school has a different ethnic origin. In our data, the H.I. ranges

between -0.875 and -0.177. On average, schools have a H.I. score of -0.461 (*SD* = 0.198; see Table 1).

Table 1. Descriptive statistics for variables: frequencies, means (continuous) and proportions (categorical) and standard deviations (SD)

	Native Belgian			Immigrants		
	N	**Mean or %**	**SD**	**N**	**Mean or %**	**SD**
Pupil level						
Global self-esteem	1477	3.824	0.631	1326	3.756	0.615
Teacher support	1486	4.096	0.632	1347	3.944	0.664
Grade (1= sixth)	1487	26.83%		1358	33.43%	
Gender (1= girl)	1479	52.13%		1348	50.89%	
SES	1480	5.437	1.996	1343	2.903	2.018
Academic achievement (IRT-scores)	1446	0.221	0.914	1329	-0.233	0.882
Ethnicity						
Turkish	-	-	-	1358	27.17%	
Moroccan	-	-	-	1358	32.70%	
Other	-	-	-	1358	40.13%	
School Level						
Ethnic concentration (% immigrants)	62	46.81%	32.07	68	51.50	34.16
Ethnic heterogeneity (H.I.)	62	-0.440	0.184	68	-0.461	0.198
Teacher support culture	62	4.037	0.165	68	4.021	0.171
Size	62	226.274	107.682	68	222.912	104.028
Sector (1 = Catholic)	62	47.06%		68	48.39%	

As outlined above, *teacher support culture* (school-level beliefs of teacher support) will be measured according to pupils' shared beliefs of teacher support. A customary aggregation strategy is the calculation of the means of individual-level responses of the students in schools (Stern, 1970). However, the aggregation has to be reliable and represent something truly shared at the group (school) level. To examine whether the beliefs of teacher support were truly shared, we calculated the mean rater reliability (MRR) (see Glick 1985), based on the intraclass correlation of a one-way analysis of variance, with the formula: MRR = (Between Mean Square – Within Mean Square) / Between Mean Square. It is only legitimate to speak of a teacher support culture when the MRR is higher than 0.60 (Shrout & Fleiss, 1979). The teacher support culture scale yielded an MRR of 0.66. This implies that the beliefs of teacher support

are shared by pupils in the same school, and a teacher support culture actually exists. The mean score for teacher support culture for all schools is 4.021 (SD = 0.171; see Table 1) and it correlated significantly with the ethnic composition (Pearson r = -0.340; $p < .01$). This indicates that there is a lower teacher support culture in schools with a higher share of immigrant pupils.

At the school level, we control for *school size* and *school sector*. We determined the school size from the total number of pupils, using data gathered from the Flemish Educational Department. The number of pupils varied from 91 in the smallest school to 526 in the largest. The schools have an average of 223 pupils (SD = 104.028). The variable school sector was split between non-denominational, public schools (score 0) and Catholic schools (score 1). Reflecting the urban educational situation in Flanders, almost half of the schools in our data are Catholic schools (see Table 1 for descriptive statistics).

Results

In order to assess whether school context matters with respect to global self-esteem, the variance components from the unconditional models are shown in Table 2. We are particularly interested in the variance at the school level, which is computed as the between-school variance component divided by the sum of the within-school variance and between school variance ($\tau_0 / (\sigma^2 + \tau_0)$). Table 2 demonstrates that, for native-Belgian pupils, 2.77% ($p < 0.01$) of the variance lies between schools, whereas for immigrant pupils the figure falls to 2.42% ($p < 0.05$). In other words, most of the variation occurs within schools, between pupils.

Table 2. Variance components for global self-esteem from the unconditional models

Variance components	Natives	Immigrants
Between school τ_0	0.011**	0.010*
Within school σ^2	0.389***	0.369***
% variance at school-level	2.77%**	2.42%*

*p < 0.05, **p < 0.01, ***p < 0.001

Nevertheless, a small but significant amount of variance in global self-esteem is situated at a school level, which justifies the need for a multilevel analysis. However, given that only a small proportion of variance in global self-esteem is attributable to the school-level, we will be very cautious when we are interpreting the possible

significant effects of school-level variables, in particular, when we are discussing the practical implication of our results .

Table 3 presents the results of multilevel regression analyses for native Belgian pupils. In Model 1 we enter the ethnic composition variables. It is clear that only the ethnic concentration is significantly related to native pupils' global self-esteem: in schools with a higher share of immigrant pupils, native pupils have a higher self-esteem (standardised coefficient $\gamma^* = 0.197$; $p < 0.05$). In Model 2 (Table 3), that is, as we include a set of control variables, the effect size of ethnic concentration substantially increases ($\gamma^* = 0.336$, $p < 0.001$). In this second model, the ethnic school heterogeneity has a significant effect on self-esteem as well: the larger the ethnic heterogeneity of the school, the lower native pupils' global self-esteem ($\gamma^* = -0.133$; $p < 0.05$). While the included control variables are not the primary focus of this study, it is worth mentioning that girls have a lower global self-esteem than boys ($\gamma^* = -0.086$, $p < 0.001$), and pupils with a higher SES ($\gamma^* = 0.06$, $p < 0.05$) and a higher academic achievement ($\gamma^* = 0.207$, $p < 0.001$) exhibit higher levels of global self-esteem. In Model 3 (Table 3), we enter pupils' teacher support and schools' teacher support culture. The results indicate that teacher support is strongly related to the global self-esteem of native pupils ($\gamma^* = 0.401$, $p < 0.001$), while teacher support culture at school level (pupils' shared beliefs of teacher support in schools), does not have a significant effect ($\gamma^* = 0.011$, $p = 0.73$). In other words, the extent to which individual native pupils feel their teachers as supportive does matter, while the extent to which their peer group at school experiences teacher support does not have an impact on their self-esteem. Most importantly, compared with Model 2, no substantial changes occur with respect to the effect of the ethnic school composition variables. This implies that, for native pupils, there is no mediation effect from teacher-pupil relationships.

Table 4 presents the results for immigrant pupils. Model 1 indicates that none of measures of ethnic school composition is related to global self-esteem (ethnic concentration: $\gamma^* = 0.010$, $p = 0.80$; ethnic heterogeneity: $\gamma^* = 0.016$, $p = 0.68$). When control variables are included in the second model (Table 4), this picture hardly changes. When we compare the above described Model 2 for native pupils (Table 3) with this Model 2 for immigrant pupils (Table 4), it is clear that the ethnic composition of schools have an influence on native Belgian pupils, but not on immigrant pupils. T-test comparisons of the unstandardized coefficients for both groups in Model 2 (Table 3 and Table 4), confirms that the impact of both ethnic minority concentration ($t = 2.236$, $p < 0.05$) and ethnic heterogeneity ($t = 2.451$, $p <$

0.05) differ for both groups. Moreover, the effects of the individual level control variables are also different for immigrant pupils: gender and SES do not have a significant effect for immigrant pupils, while they do for native pupils.

Table 3. Results of multilevel analysis for global self-esteem for native pupils. Gamma coefficients (γ), standard errors (in parentheses), standardized gamma coefficients (γ*), and variance components.

		Model 1	Model 2	Model 3
School Level				
Ethnic concentration (% immigrants)	γ γ*	0.004 (0.002) 0.197*	0.006 (0.002) 0.336***	0.005 (0.001) 0.283***
Ethnic heterogeneity (H.I.)	γ γ*	-0.293 (0.214) -0.092	-0.423 (0.211) -0.133*	-0.362 (0.179) -0.114*
Size	γ γ*		0.000 (0.000) 0.041	0.001 (0.000) 0.059*
Sector (1 = Catholic)	γ γ*		-0.049 (0.041) -0.039	-0.004 (0.035) -0.004
Teacher support culture	γ γ*			-0.040 (0.116) -0.011
Pupil level				
Grade (1= sixth)	γ γ*		-0.001 (0.051) -0.001	0.007 (0.039) 0.005
Gender (1= girl)	γ γ*		-0.109 (0.035) -0.086***	-0.146 (0.032) -0.116***
SES	γ γ*		0.019 (0.009) 0.062*	0.020 (0.008) 0.063**
Academic achievement	γ γ*		0.143 (0.026) 0.207***	0.099 (0.021) 0.144***
Teacher support	γ γ*			0.401 (0.038) 0.401***
Variance components				
Between schools	τ_0	0.010*	0.002	0.001
Within school	σ^2	0.389***	0.350***	0.293***

*p < 0.05, **p < 0.01, ***p < 0.001

A clarification of these differences is provided in Model 3 (Table 4), that is, after we enter teacher-pupil relationship variables. Indeed, in this third model, the regression coefficients for ethnic concentration, gender and SES are similar to those we found for native pupils: the ethnic concentration is positively related to self-esteem (γ* = 0.094, $p < 0.05$), girls exhibit lower levels of self-esteem (γ* = -0.090, $p < 0.001$), and SES is positively associated with self-esteem (γ* =0.065; p < 0.05). It is clear that the included teacher-pupil relationships exert a suppression effect for immigrant pupils.

Moreover, for immigrant pupils not only does teacher support of individual pupils have a positive effect ($\gamma^* = 0.407$, $p < 0.001$), but there is also a small but significant positive effect of schools' teacher support culture on pupils' global self-esteem ($\gamma^* = 0.062$, $p < 0.05$). This evidence suggests that teacher-pupil relationships – measured at both pupil and school level – indeed mediate the impact of ethnic school composition on immigrant pupils' self-esteem: supportive teacher-pupil relationships buffer the potential negative effect of schools with a low ethnic concentration on immigrant pupils' self-esteem.

Table 4. Results of multilevel analysis for global self-esteem for immigrant pupils. Gamma coefficients γ, standard errors (in parentheses), standardized gamma coefficients γ*, and variance components.

		Model 1	Model 2	Model 3
School Level				
Ethnic concentration (% immigrants)	γ	0.000 (0.001)	0.001 (0.001)	0.002 (0.001)
	γ*	0.010	0.045	0.094*
Ethnic heterogeneity (H.I.)	γ	0.048 (0.118)	0.158 (0.108)	0.017 (0.099)
	γ*	0.016	0.051	0.006
Size	γ		0.001 (0.001)	0.001 (0.001)
	γ*		0.023	0.055
Sector (1 = Catholic)	γ		0.008 (0.038)	0.012 (0.035)
	γ*		0.006	0.010
Teacher support culture	γ			0.225 (0.116)
	γ*			0.062*
Pupil level				
Grade (1= sixth)	γ		0.074 (0.039)	0.059 (0.036)
	γ*		0.057*	0.045
Gender (1= girl)	γ		-0.048 (0.035)	-0.111 (0.033)
	γ*		-0.039	-0.090***
SES	γ		0.015 (0.010)	0.020 (0.009)
	γ*		0.048	0.065*
Academic achievement	γ		0.136 (0.022)	0.078 (0.022)
	γ*		0.195***	0.112***
Ethnicity (ref: Other)				
Turkish	γ		0.054 (0.047)	0.074 (0.042)
	γ*		0.039	0.053
Moroccan	γ		-0.096 (0.041)	-0.089 (0.037)
	γ*		-0.073*	-0.068*
Teacher support	γ			0.378 (0.028)
	γ*			0.407***
Variance components				
Between schools	τ_0	0.009*	0.008*	0.001
Within school	σ^2	0.369***	0.349***	0.287***

*p < 0.05, **p < 0.01, ***p < 0.001

Conclusions and discussion

Opponents of ethnic school desegregation policies frequently refer to the empirical evidence which has indicated that ethnic minority pupils exhibit lower levels of self-esteem in *de facto* desegregated schools. They argue that school desegregation might not be as beneficial for ethnic minorities as is generally believed, because it might harm pupils' self-concepts (see Bankston & Zhou, 2002). While there are indeed empirical studies that have demonstrated the favorable effect of ethnic minority concentration on the self-esteem of ethnic minority pupils, these studies are mainly conducted in the US (see meta-review by Gray-Little & Hafdahl, 2000). The contributions of this study are twofold: we not only assess the impact of ethnic minority concentration and ethnic heterogeneity on the global self-esteem of both ethnic minority pupils (native Belgian) and immigrant pupils, but we also examine the highly neglected role of teacher-pupil relationships as a mediating mechanism between ethnic school composition and global self-esteem.

Overall, the results of our multilevel analyses are noticeably different for natives and immigrant pupils. We find that native Belgian pupils exhibit higher global self-esteem in schools with a greater share of immigrant pupils and in those with less ethnic heterogeneity. However, for immigrant pupils, none of the measures of ethnic school composition was initially related to their global self-esteem, even after taking into account a set of control variables. While this finding contrasts with previous studies from the US that particularly suggested that ethnic minority (mostly Black) pupils' self-esteem is affected by ethnic school composition (see Gray-Little & Hafdahl, 2000), our results are in line with the only study we are aware of that is conducted in a similar European context. In this study Verkuyten & Thijs (2004), in the Netherlands, also found that the share of ethnic minority pupils at school was positively related to the self-esteem of ethnic majority (native Dutch) pupils, while it did not have an effect on the self-esteem of ethnic minority pupils. The higher self-esteem of native pupils in schools with a larger ethnic minority concentration can be explained by social comparison processes (see Merton, 1968), that is, in such schools native pupils are more likely to compare themselves with less esteemed ethnic minority pupils, which might result in higher self-esteem. The reason why ethnic minority concentration was (initially) not related to immigrant pupils' self-esteem has to do with the mediating role of teacher-pupil relationships. Indeed pupils' feelings of teacher support and schools' teacher support culture were both positively associated with higher global self-esteem for immigrant pupils. Most importantly, we find that

teacher-pupil relationships suppress the effect of ethic school composition on the global self-esteem of immigrant pupils: after entering teacher support and teacher support culture, ethnic minority concentration is also negatively related to immigrant pupils' self-esteem. Moreover, regarding the impact of gender and SES for immigrant pupils, we find evidence of the same buffering role of supportive teacher-pupil relationships. For native pupils, we did not find a mediation effect from teacher-pupil relationships. It seems that in Flanders there are divergent effects of ethnic minority concentration for natives and immigrant pupils due to teacher-pupil relationships. This is probably also the case in the Netherlands, but we cannot be sure of this statement as Verkuyten and Thijs (2004) did not examine the impact of teacher-pupil relationships. This underlines the importance of testing well-established hypotheses in different national contexts and conducting more studies in (West-) European countries, to clarify whether the findings of our study and those of Verkuyten and Thijs' constitute a particular finding for the (West-) European educational context. A potential limitation of this study is that we only considered the influence of school-level and pupil-level variables, and failed to include any classroom-level variables. However, we did this because our sample was not suitable for running a three-level model, and the focus of the research project was on the impact of school composition.

This study has important implications for educational policy and practice. With respect to educational policy, our results suggest that the impact of ethnic school composition on self-esteem should *not* constitute a major argument against school desegregation. Firstly, the school context does only account for a small variation in pupils' global self-esteem. Secondly, the potential negative impact of lower ethnic concentration on immigrant pupils is suppressed by perceived teacher-pupil relationships. Finally, the presence of immigrant pupils at a school might even enhance native pupils' global self-esteem. Nevertheless, the decision as to whether or not to desegregate schools should not be based solely on the criterion of self-esteem. If policy-makers consider desegregation, such a reallocation policy should fundamentally differ from the early forced desegregation attempts in the US, where Black students were forcibly moved to predominantly White schools. Such a policy has been shown to be fruitless and even detrimental to the educational achievement of ethnic minority students (see Armor, 1995). Moreover, Belgian constitutional law prohibits any government involvement in the parental right to freedom in choosing a school. Therefore we propose the *voluntary* enrollment of native, middle-class children to schools with a high concentration of ethnic minorities.

Regarding educational practice, the results of this study point to the overwhelming importance of teacher-pupil relationships for pupils' global self-esteem, since teacher support has by far the greatest effect in our models. Pupils' experiences of supportive relationships with their teachers are very strongly associated with higher levels of self-esteem, and for immigrant pupils such supportive relationships can even compensate for the negative impact of ethnic school composition. However, most school based interventions to enhance self-concept of pupils focus solely on individual pupils and lack to address the social relationships between teachers and pupils (see Elbaum & Vaughn, 2001; King et al., 2002). Nevertheless, individual teachers are able to enhance self-esteem and buffer the potential negative effects of school composition on it. The question of how teachers can do so, however, is beyond the scope of this study. Regarding this issue, we refer to the influential work of Denis Lawrence (2006), who provides an extensive menu of activities and strategies for teachers to enhance pupils' self-esteem.

Hoofdstuk IV: futiliteitsgevoelens en prestaties

Why does the ethnic and socio-economic composition of schools influence math achievement? The role of sense of futility and futility culture[4]

Abstract

Although a number of studies in many countries have investigated the impact of the ethnic and socio-economic composition of schools on academic performance, few studies have analyzed in detail how and why compositional features matter. This article presents an examination of whether pupils' sense of futility and schools' futility culture account for the impact of ethnic and socio-economic status (SES) composition of schools on the academic achievement of their pupils. Multilevel analyses of data based on a survey of 2,845 pupils (aged 10–12 years) in 68 Flemish primary schools revealed that higher proportions of immigrant and working-class pupils in a school is associated with lower levels of math achievement in both immigrant and native Belgian pupils. However, by analyzing at a deeper level, by taking control variables into account, our study found that the ethnic composition of the school no longer had a significant effect on pupils' achievement, while the SES composition still did. Most importantly, our results indicated that the remaining impact of SES composition can be explained by pupils' sense of futility and schools' futility culture. The implications of these findings for educational policy are discussed.

[4] Dit hoofdstuk is online gepubliceerd in *European Sociological Review* (2011)

Introduction

Ever since James Coleman and his team published their influential study on the impact of the ethnic and socio-economic school composition on pupils' academic achievement in 1966, the issue has continued to be debated. Indeed, the issue goes beyond purely academic speculation as it is directly related to policies concerning school segregation. While most previous studies on this topic have been conducted in the United States with secondary school students (Bankston and Caldas, 1998; Rumberger and Palardy, 2005; Ryabov and Van Hook, 2007), the issue has become increasingly popular among European sociologists, as indicated by a growing number of publications in the *European Sociological Review* directly or indirectly related to the impact of school composition on academic performance (van der Slik, Driessen and De Bot, 2006;Boado, 2007; Fekjaer and Birkelund, 2007; Biedinger, Becker and Rohling, 2008; Brännström, 2008; Kauppinen, 2008) and furthermore there is a growing body of research in different countries with primary school pupils (Strand, 1997;Driessen, 2002; van der Slik et al., 2006; Dumay and Dupriez, 2008). With a few exceptions, these studies have demonstrated that the socio-economic composition of primary schools is related to academic achievement, that is, pupils going to schools with a higher share of children from a higher socio-economic background were found to perform academically better. There is less consensus when it comes to the impact of *ethnic* school composition: while some authors suggest that a higher concentration of ethnic minority and immigrant pupils is related to lower academic performance (Driessen, 2002;Dumay and Dupriez, 2008), others do not find a significant relationship between ethnic school composition and academic achievement, in particular when individual socio-economic status (SES), ethnic background and previous academic achievement are taken into account (van der Slik et al., 2006; Fekjaer and Birkelund, 2007).

These studies, among others, have made considerable contributions to our knowledge of the influences of ethnic and socio-economic school composition on academic achievement. However, less is known about *how and why* these compositional features are influential, despite the fact that understanding this fully should be an essential part of the foundation of educational policy. For instance, much of the research that has suggested that the ethnic and socio-economic composition of a school exert an influence on pupils' academic achievement has failed to investigate *why* this might be. However, if further research was conducted with the aim of identifying the mediating processes that explain why certain school compositions

affect academic performance, then policymakers might be able to improve student achievement without desegregation, by focusing on these processes. Nevertheless, if those mediating processes that influence the success of students are found to be inherently linked to the compositional features of the school environment, then efforts to change the composition of the school should be advocated (Rumberger and Palardy, 2005). This artilce presents our attempt to improve our understanding of the impact of socio-economic and ethnic school composition by exploring the mediating role of the highly neglected concepts of sense of futility (Brookover and Schneider, 1975) and futility culture (Van Houtte and Stevens, 2008, 2010a). Before we discuss the importance of these concepts, we will briefly describe our study setting.

Study Setting

This study was conducted in Flanders, the Dutch-speaking region of Belgium. Belgium is an exceptionally interesting case study for the impact of school segregation as previous studies have pointed out that socio-economic and ethnic school segregation is very high there compared to other Western countries (Jacobs, Rea and Teney, 2009). The unusually high unequal distribution of ethnic minority (immigrant) and working class students between schools is linked to both historical evolution and to Belgian educational policy. First, after World War II, Belgium rapidly developed into a multicultural society comprised of immigrants from Southern Europe, Turkey and North Africa. Immigration was restricted by the government in 1973, however the influx of immigrants continued via family reunification and matrimonial migration (Sierens et al., 2006). Given that these immigrants usually lived in particular districts within the larger cities in which industries were located, this led to a concentration of immigrant students in certain schools, namely, in those that traditionally enrolled native Belgian working-class children. As these schools attracted greater numbers of immigrant students, they became confronted with so-called 'white flight', whereby native Belgian parents decided to enroll their children in other schools because of the increasing number of immigrant students. Higher-educated and economically better-situated immigrant parents tended to follow the example of native Belgian parents as well. Thus we are dealing with schools that are segregated along both socio-economic and ethnic lines (Sierens et al., 2006; Van Houtte and Stevens, 2009).

Second, this exceptionally high level of school segregation is related to the specific educational policy of free parental choice. The Belgian educational system is characterized by the principle of freedom of education, which means that the assignment of students to schools is not regulated (e.g. by place of residence) within the public education sector. This freedom of school-choice allows parents to choose or avoid schools with a certain composition. As middle class parents have more resources, they tend to avoid schools with a high share of working class and immigrant pupils, even if these schools are situated in their immediate neighbourhood. As a result, ethnic and socio-economic school segregation is very high in Belgium (Sierens et al., 2006; Van Houtte and Stevens, 2009).

In Belgium, schools with a high share of ethnic minority and working class pupils are commonly named 'concentration schools', which is a pejorative term. In the public discourse, a 'concentration school' is almost a synonym for a school with low instruction quality and weak academic performance. While these 'concentration schools' are segregated along both socio-economic and ethnic lines, the concentration of ethnic minority pupils is considered especially problematic (Sierens et al., 2006). However, in Belgium, there is very little scientific evidence about the impact of ethnic and/or socio-economic school composition on academic achievement (for a preliminary analysis of the PISA 2006 data for secondary schools in Belgium, see Jacobs et al., 2009) and there are even fewer empirical explanations of why school composition affects academic performance. Hence it is vital to address these issues to achieve a better understanding of the potential harms of socio-economic and/or ethnic school segregation.

Sense of Futility and Futility Culture

An essential part of the socialization process takes place in the school context, since children spend almost half their waking hours at school. As such, contextual school conditions are likely to influence pupils' beliefs, attitudes, and feelings toward schooling. In particular, compositional school characteristics are likely to have an impact because these compositional features of schools not only determine with whom pupils in a given school interact, but also influence the relationships between pupils and teachers (Thrupp, 1999; Van Maele and Van Houtte, 2010). Pupils' disposition toward schooling or educational success, in turn, can be expected to have an effect on their academic performances (Bourdieu and Passeron, 1990). In other words, pupils'

dispositions are likely to mediate the impact of ethnic and socio-economic school composition on achievement. Here we are dealing with the well-known Bourdieuian Structure-Disposition-Practice (SDP) scheme (Bourdieu, 1977), which is frequently used as an explanation of why socio-economic and ethnic differences at the *individual pupil level* have an impact on academic achievement (for an overview see Nash and Lauder, 2010), whereas the SDP scheme is widely neglected when it comes to the impact of *contextual school level* differences in socio-economic and ethnic composition.

Here, we consider the concept of *sense of futility* as a potential dispositional variable that might account for the impact of school composition. Sense of futility refers to students' belief that they have no control over their educational success and their feelings that the school system is working against them (Brookover and Schneider, 1975; Brookover et al., 1978). We expect that children in schools with an higher share of working class and ethnic minority pupils are more likely to develop a sense of futility because these 'concentration schools' are in general little esteemed and their pupils are expected to fail (see section above on 'Study Setting'). Even teachers in such schools expect their students to be less teachable (Thrupp, 1999; Van Maele and Van Houtte, 2010). Hence pupils in schools with a high share of working class and immigrant children are likely to internalize these negative beliefs which may result in a higher sense of futility. Recent empirical evidence points in this direction: Van Houtte and Stevens (2008, 2010a) have shown that sense of futility is more prevalent in schools with a lower mean SES composition. Moreover, these authors make a clear distinction between sense of futility (at pupil level) and pupils' common feelings of futility within schools, for which they introduced the concept of 'school futility culture'. Both sense of futility and futility culture have been shown to have a negative impact on pupils' study involvement. In this article, we adopt this distinction between pupil-level sense of futility and school-level futility culture. We will examine whether these variables potentially account for the effect of ethnic or socio-economic school composition on academic achievement.

It should be noted that the concept of sense of futility is distinct from the social-psychological concepts of self-esteem and educational aspirations. To illustrate this, compare a typical item from the sense of futility measurement ('people like me will never do well in school even though we try hard') with an item from the widely used Rosenberg Self-Esteem questionnaire ('in general, I am content with myself', see Rosenberg and Simmons, 1972). The most important difference is that while sense of futility refers to group based beliefs (i.e. 'students like me'), the self-esteem

measurement refers only to the individual ('I am … '). As such, the sense of futility is a more appropriate way to conceptualize *group based dispositions* as described in the work of Pierre Bourdieu (1977). Moreover variables such as self-esteem and educational aspirations are unable to account for the negative impact of schools with a higher concentration of ethnic minority and working-class pupils, as there is firm empirical evidence that in such schools pupils' self-esteem and educational aspirations are even higher than in schools with a higher share of ethnic majority and middle-class pupils (Gray-Little and Hafdahl, 2000; Verkuyten and Thijs, 2004; Frost, 2007).

Against this background, we can express our research questions in the following—more operational—terms:

1. Does the socio-economic and/or ethnic composition of schools have an effect on pupils' academic achievement?
2. If they do, do these compositional features still have an effect on achievement when we control for individual-level and school-level variables?
3. If they still do, do sense of futility and futility culture account for the impact of socio-economic and/or ethnic composition of schools on academic achievement?

Methods

Sample

We use data gathered during the academic year 2008–2009 from 2,845 pupils in a sample of 68 primary schools in Flanders, as part of the Segregation in Primary Education in Flanders (SIPEF) project. Multistage sampling was conducted. In the first instance, in order to encompass the entire range of ethnic composition, we selected three cities in Flanders that had relatively ethnically diverse populations. Second, using data gathered from the Flemish Educational Department, we chose 116 primary schools within these selected cities and asked them to participate: 54 per cent of them agreed to do so. To avoid selection bias, these schools were selected on one of the independent variables (King, Keohane and Verba, 1994), that is, we selected the school according to their ethnic composition, as this information was made available by the Flemish Educational Department. Our aim was to select one third of the schools with a low concentration of immigrants (<10 percent), one third

with a medium concentration (between 10 and 50 percent) and one third with a high concentration (between 50 and 100 percent). Because the non-response was not related to the ethnic composition of schools, the schools in the SIPEF-data set encompassed the entire range of ethnic composition, from those with almost no immigrant pupils to some composed entirely of immigrants.

In all the schools that agreed to participate, our research team conducted a questionnaire with all the fifth-grade pupils present during our visit. If there were fewer than 30 fifth-grade pupils present then we also surveyed all the sixth-grade pupils as well. The questionnaire consisted of two parts and lasted two hours. In the first hour, we gathered information on the background variables and non-cognitive variables (e.g. parental support, sense of futility, etc…). In the second hour, an academic achievement test was conducted. Given the time limitation, we could not test all subjects. We focused on math achievement, since a large proportion of the respondents are not native speakers of Dutch and math tests are less linguistically biased than more linguistically challenging subjects such as reading (Abedi, Hofstetter and Lord, 2004). To assure that the questions were curriculum-based, the school principals were asked to approve the test. Two schools were removed from the analysis because these schools could not confirm that the test was curriculum-based. This reduced the number of schools in our data set to 66 and the number of pupils to 2,787.

Research Design

Because the data set was made up of a clustered sample of pupils nested within schools and involved data at different levels (pupil- and school-level), the use of hierarchical linear modeling (multilevel modeling) is most appropriate (SAS PROC MIXED, Singer, 1998). Since some studies have pointed out that the impact of ethnic and/or socio-economic school composition might differ for native and ethnic minority pupils (Szulkin and Jonsson, 2007), we carried out each analysis separately for native Belgian (N= 1,453) and immigrant children (N= 1,350).

We began by estimating the unconditional models to determine the amount of variance in academic performance that occurs among schools. Then, in the first models, we examined the effects of ethnic and SES composition. As there is a high correlation between SES and ethnic school composition (i.e. between the proportion of working class pupils and immigrant pupils at school level; Pearson r= 0.88), including

both variables in the same model could cause multicollinearity problems. Therefore, following Dumay and Dupriez (2008), we decided to include both compositional variables in different sets of models. At this stage, these compositional effects should be interpreted very carefully, especially regarding policy implications. As noted by Manski (1993, 2000), it is vital to take into account correlated or selection effects when examining contextual effects. A correlated or selection effect occurs when pupils with similar characteristics tend to be clustered in similar schools. For instance, when SES composition is not significantly related to pupils' academic achievement anymore after taking pupil level SES into account, then socio-economic school segregation *per se* should not be a policy concern. Therefore in the next models, to rule out selection effects, we control for variables that have been demonstrated to be related to pupils' academic achievement (Thrupp, Lauder and Robinson, 2002). At the individual level we controlled for grade, gender, previous achievement, parental support, and individual SES. For immigrant students we also controlled for ethnicity. At the school level we controlled for school sector and school size ('Variables' section). In case compositional variables were still related to pupils' academic achievement, in the next models we entered students' sense of futility and schools' futility culture to examine whether they account for the impact of school composition.

In variables measured by means of a scale, responses were imputed for missing values by way of item correlation substitution: a missing value for one item is replaced by the value of the item correlating most highly with that item (Huisman, 2000). For the sake of comparability across different models, cases with remaining missing values were removed from the analysis. For native Belgian pupils 80 cases were removed from the analysis, returning the total to 1,352, and for immigrant pupils 144 cases were removed, returning their number to 1,206 (Table 1).

Variables

Ethnic origin

Because the analyses were performed separately for native and immigrant pupils, it is important to explain how we distinguished between these two groups. The principal criterion was the birthplace of the pupils' grandmothers. If these data were missing, we considered parents' birthplaces instead, as most non-native pupils in Flanders are second- or third-generation immigrants. As is common practice, and in line with the

official Flemish definition of non-native groups, students of Western European origins were considered to be of native descent. As such, we created a dichotomous variable (0 = native, 1 = immigrant) so that 47.73 per cent of our respondents are categorized as immigrant.

Outcome

The dependent variable in our analysis is math achievement, measured by a test developed by Dudal and Deloof (2004), which is based on Flemish educational attainment levels outlined for students in the fifth grade of their primary education. The test consists of 60 items, covering elementary arithmetic, problem solving, fractions, point numbers, and long division. The test yielded a Cronbach's alpha of 0.91. In our data, on a theoretical range from 0 to 60, native pupils achieved on average 44.11 (SD = 10.03) and immigrant pupils 39.06 (SD = 10.52; Table 1).

Individual level variables

Our research concentrated on fifth- and sixth-grade pupils. Therefore, in 2009, most of the respondents were aged 11 (~49 per cent) or 12 (~36 per cent). Given the high correlation between age and grade (Cramer's V = 0.64; $P < 0.001$), we had to choose one of these two variables to enter into the model. Because the sample was unbalanced in terms of grade, we opted for the grade (Table 1).

The sample was equally divided with respect to gender, with around 52 per cent of the respondents being female (male = 0, female = 1; Table 1).

Our data did not include a *direct* measure of the previous achievement of pupils. Initially, our intention was to measure previous achievement using pupils' Grade Point Average (GPA) from previous years. However, many schools did not provide their pupils' GPA, so we were unable to include previous GPA in our model. As an alternative way of measuring this, we asked pupils whether they had to repeat a year in the past. This is because retention is regarded as a reliable indicator of poor academic achievement (Alexander, Entwisle and Dauber, 1994). Table 1 indicates that almost 16 per cent of native pupils in our sample and 39 per cent of immigrant pupils had had to repeat a year in the past (Table 1).

Parental support was measured using a seven-item scale with five answer categories, ranging from 'absolutely do not agree' (scored 1) to 'completely agree' (scored 5) (Brutsaert, 2001). Two sample items are: 'My parents accept me as I am' and 'I feel that my parents do not care much about me' (reversed). This scale yields a

Cronbach's alpha of 0.73. With respect to parental support, immigrant pupils had a mean score of 4.48 (SD = 0.58) and native students 4.52 (SD = 0.54; Table 1).

We measured the family SES of the pupils by assessing the occupational prestige of the father and mother (Erikson, Goldthorpe and Portocarero, 1979). The highest-prestige occupation of the parents was used as an indicator of the SES of the family. We identified five distinct groups, which are hierarchically ordered with regard to social status: (1) unemployed and blue-collar workers, (2) technicians and supervisors, (3) small proprietors and self-employed workers, (4) lower-grade white-collar employees, and (5) higher-grade professionals and entrepreneurs. Table 1 clearly shows that immigrant pupils are significantly more represented in the lower socio-economic groups.

For immigrant students, we also we controlled for ethnicity, based on the birthplace of elders (see above). Because the group sizes of the different ethnic groups in our data are rather low, we only distinguished three groups: we created two dummy variables for the two numerically largest immigrant groups in Belgium, i.e. (1) Turks (28 per cent) and (2) Moroccans (33 per cent) and other immigrant pupils are categorized as (3) 'others' (39 per cent; Table 1). This last category is used as the reference category in the multilevel analyses.

Pupils' sense of futility is measured according to the sense of futility scale (Brookover et al., 1978). The four items are 'People like me will not have much of a chance to do what we want to in life,' 'People like me will never do well in school, even though we try hard,' 'At school, students like me seem to be unlucky,' and 'Achievement at school is just a matter of luck.' Each item has five responses ranging from 'absolutely do not agree' (scored 1) to 'completely agree' (scored 5). While this scale yielded a relatively low Cronbach's alpha (0.62), an explanatory factor analysis revealed that there was one underlying dimension for this scale, explaining 47.46 per cent of the variance.

School-level variables

The ethnic composition of schools is measured by the proportion of non-Western immigrant respondents in any one school in our database. On average, the proportion of immigrant pupils is 52.66per cent (SD = 33.99), ranging from 2.63 to 100 per cent. In six of the schools in our data set there were no native pupils, reducing the number of schools with native pupils to 60 (Table 1).

The socio-economic composition of the school was calculated by aggregating the individual family SES of pupils. Specifically, this was done by calculating the proportion of pupils from a blue-collar working-class background. On average, the proportion of pupils from a blue-collar background is 38.50 per cent (SD = 22.29), ranging from 3.94 to 96.15 per cent.

At a school level, we also controlled for school sector and school size. The school sector variable was split between 32 public schools (municipal and state schools; score 0) and 34 private schools (score 1). We determined school size from the total number of pupils, using data gathered from the Flemish Educational Department. The number of pupils varied from 91 in the smallest school to 526 in the largest. The schools had an average of 223 pupils (SD = 104.03; Table 1).

Table 1. Descriptive statistics for variables: frequencies, means (for continuous variables) and proportions (for categorical variables) and standard deviations (SD).

		Natives			**Immigrants**	
	N	**Mean or %**	**SD**	**N**	**Mean or %**	**SD**
School level						
Ethnic composition: % immigrants	60	47.936	31.982	66	52.669	33.999
SES composition: %blue-collar	60	36.212	21.854	66	38.505	22.289
School sector (private)	60	53.33%		66	51.52%	
School size	60	229.217	108.237	66	225.485	104.528
Futility culture	60	2.078	0.274	66	2.092	0.279
Individual level						
Math achievement	1352	44.109	10.025	1206	39.064	10.521
Sense of futility	1352	1.929	0.761	1206	2.216	0.842
Grade (sixth)	1352	27.29%		1206	34.99%	
Gender (girl)	1352	52.22%		1206	52.16%	
Grade retention	1352	15.53%		1206	39.22%	
Parental support	1352	4.516	0.542	1206	4.476	0.579
SES						
Blue-collar	1352	17.38%		1206	63.85%	
Technicians	1352	17.09%		1206	13.60%	
Self-employed	1352	6.14%		1206	8.37%	
Lower white-collar	1352	25.30%		1206	9.78%	
Service class	1352	34.10%		1206	4.39%	
Ethnicity	---	---	---			
Turkish	---	---	---	1206	28.03%	
Moroccan	---	---	---	1206	32.67%	
'Other'	---	---	---	1206	39.30%	

Two level of a schools' futility culture is measured by aggregation of individual level scores of sense of futility. A customary aggregation strategy is the calculation of the means of individual level responses of the students within each school (Stern, 1970). However, the aggregation has to be reliable and represent something truly shared at the school level (Glick, 1985). To examine whether futility culture was truly shared

within schools, we calculated the mean rater reliability (MRR), based on the intraclass correlation of a one-way analysis of variance, with the formula: MRR = (Between Mean Square—Within Mean Square)/Between Mean Square). It is only legitimate to speak of a futility culture when the MRR is higher than 0.60 (Shrout and Fleiss, 1979). The sense of futility scale yielded an MRR of 0.73. This means that feelings of futility are *more* shared within schools than they are shared between schools, indicating that a futility culture exists at school level. The mean futility culture for the average school was 2.09 (SD =0.278), and it correlated significantly with the ethnic composition (Pearson $r = 0.53$; $P < 0.001$) and the SES composition (Pearson $r = 0.58$; $P < 0.001$). This indicates that there is a higher futility culture in schools with a higher share of immigrant pupils and those with a higher share of pupils from a blue-collar working-class background.

Results

In order to assess whether school context matters with respect to academic achievement, the variance components for math achievement from the unconditional models should be assessed (Table 2). We are particularly interested in the variance at the school level, which is computed as the between-school variance component divided by the sum of the within-school and between-school variance [$\tau_0/(\sigma^2 + \tau_0)$]. As has been found in other school-effect research (Teddlie and Reynolds, 2000) most of the variation occurs within schools and between pupils. Nevertheless, these figures indicate that a considerable amount of variance in math achievement is at school level; this justifies the need for a multilevel analysis. To be more specific, Table 2demonstrates that for native and immigrant pupils respectively 26 per cent ($P < 0.001$) and 25 per cent ($P < 0.001$) of the variance lies between schools.

Table 2. Variance components for math achievement from the unconditional models

	Immigrants	Natives
Between-school variance τ_0	28.522***	27.766***
Within-school variance σ^2	85.532***	77.986***
% Variance between schools	25.01%***	26.26%***

Models i1 (Table 3) and n1 (Table 4), show that the proportion of immigrant pupils at a school is negatively related to the academic performance of both immigrant pupils (standardized coefficient $\gamma^* = -0.199$; $P < 0.01$; Model i1) and native pupils

($\gamma^* = -0.245$; $P < 0.01$; Model n1). In the next two models, i2 (Table 3) and n2 (Table 4), control variables at the pupil and the school level are included. For both groups, the effect of ethnic composition now drops to an insignificant level, indicating that all else being equal, the proportion of immigrant pupils at a school does *not* have an impact on academic achievement. Hence the negative impact of ethnic composition of schools is not an independent effect, but it is most likely a selection effect: children in ethnic minority concentration schools achieve less because of their individual SES and their previous achievement.

In Models i3 (Table 3) and n3 (Table 4), we redo the analyses for the socio-economic school composition. Our results indicate that the proportion of pupils from a blue-collar background at a school is negatively related to the math performance of both immigrant pupils ($\gamma^* = -0.240$; $P < 0.001$; Model i3) and native pupils ($\gamma^* = -0.371$; $P < 0.001$; Model n3). Moreover, these figures also make clear than the correlation between SES composition and academic achievement is much higher that the correlation between ethnic composition and academic achievement. In the next two models, i4 and n4, we control for variables at both the student and the school levels. While the effect sizes of SES composition on their academic achievement falls for both groups, SES composition remains significantly related to math achievement for both immigrants ($\gamma^* = -0.189$; $P < 0.01$; Model i4) and native pupils ($\gamma^* = -0.163$; $P < 0.01$; Model n4).

The main goal of this study was to assess whether pupils' sense of futility and schools' futility culture could explain the impact of ethnic and socio-economic composition on pupils' academic achievement. To provide an answer to this question, in Models i5 (Table 3) and n5 (Table 4) we investigate the mediation impact of these variables for the relation between SES composition and achievement. For immigrant pupils, both pupils' sense of futility and schools' futility culture have a significant negative impact on their math achievement. Moreover, as Model i5 demonstrates, for immigrants pupils a school's futility culture tends to have the strongest association ($\gamma^* = -0.258$; $P < 0.001$). Most importantly, after entering sense of futility and futility culture into the model, the effect of SES composition drops noticeably and SES composition is no longer significantly related to academic achievement ($\gamma^* = -0.017$; $P = 0.867$); this supports our expectation that sense of futility and futility culture account for the impact of school composition. In Model n5 (Table 4), analogous findings are made for native pupils. However, the effect of futility culture is not significant for native pupils ($\gamma^* = -0.121$; $P = 0.110$).

While other variables in our models are not the primary concern of this article, it is worth mentioning that for both groups, sixth grade pupils, girls, pupils from a higher socio-economic background and pupils who did not repeat a year in the past achieve significantly better in math. Native pupils also perform significantly better in private than in public schools, while a school's sector is not significantly related to immigrant pupils' academic achievement. Regarding different immigrant groups, Turkish pupils tend to achieve less than 'other' immigrant pupils. It should also be noted that the initial positive effect of parental support, for both immigrant and native pupils, disappears after entering sense of futility and futility culture in to the models, which indicates that sense of futility does not only capture pupils' feelings acquired at school, but also those that are acquired at home.

Table 3. Results of multilevel analysis for math achievement for immigrant pupils. Gamma coefficients (γ), standardized gamma coefficients (γ*), standard errors (in parentheses).

		Model i1	Model i2	Model i3	Model i4	Model i5
School Level						
Ethnic composition: (% immigrants)	γ γ*	-0.061 (0.022) -0.199**	-0.030 (0.024) -0.096	---	---	---
SES composition: (% blue-collar)	γ γ*	---	---	-0.111 (0.032) -0.240***	-0.088 (0.035) -0.189**	-0.008 (0.035) -0.017
School sector (1 = private)	γ γ*	---	0.148 (1.389) 0.007	---	0.111 (1.337) 0.005	0.092 (1.124) 0.004
Size	γ γ*	---	-0.003 (0.007) -0.032	---	-0.007 (0.007) -0.074	-0.004 (0.006) -0.041
Futility culture	γ γ*	---	---	---	---	-9.773 (2.564) -0.258***
Pupil level						
Grade (1 = sixth)	γ γ*	5.927 (0.668) 0.269***	5.435 (0.664) 0.247***	5.955 (0.677) 0.270***	5.417 (0.671) 0.246***	4.638 (0.606) 0.210***
Gender (1 = girl)	γ γ*	---	-1.863 (0.653) -0.088**	---	-1.891 (0.654) -0.090**	-1.869 (0.647) -0.089**
Grade retention	γ γ*	---	-5.158 (0.525) -0.239***	---	-5.157 (0.525) -0.239***	-4.532 (0.517) -0.210***
Parental support	γ γ*	---	1.410 (0.432) 0.078***	---	1.424 (0.431) 0.078***	0.628 (0.434) 0.035
SES (ref: service class)						
Blue-collar	γ γ*	---	-3.863 (1.334) -0.176**	---	-3.637 (1.330) -0.166**	-3.030 (1.293) -0.138**
Technicians	γ γ*	---	-4.179 (1.505) -0.136**	---	-3.999 (1.503) -0.130**	-3.538 (1.470) -0.115**
Self-employed	γ γ*	---	-1.840 (1.536) -0.048	---	-1.732 (1.530) -0.046	-1.585 (1.484) -0.042
Lower white collar	γ γ*	---	-1.892 (1.468) -0.053	---	-1.759 (1.463) -0.050	-1.307 (1.440) -0.037
Ethnicity (ref: Other)						
Turkish	γ γ*	---	-2.042 (0.725) -0.087**	---	-1.993 (0.721) -0.085**	-1.982 (0.700) -0.085**
Moroccan	γ γ*	---	0.587 (0.659) 0.026	---	0.648 (0.658) 0.029	0.942 (0.641) 0.042
Sense of futility	γ γ*	---	---	---	---	-2.331 (0.314) -0.186***
Variance components						
Between schools	τ_0	23.869***	22.373***	22.265***	20.417***	12.864**
Within schools	σ^2	79.708***	68.058***	79.593***	67.975***	65.014***

* p < 0.05, ** p < 0.01, *** p < 0.001

Table 4. Results of multilevel analysis for math achievement for native pupils. Gamma coefficients (γ), standardized gamma coefficients (γ*), standard errors (in parentheses) and variance components

		Model n1:	**Model n2:**	**Model n3:**	**Model n4**:	**Model n5:**
School Level						
Ethnic composition: (% immigrants)	γ	-0.077 (0.024)	-0.028 (0.020)	---	---	---
	γ*	-0.245**	-0.091			
SES composition: (% blue-collar)	γ	---	---	-0.167 (0.034)	-0.074 (0.032)	-0.036 (0.037)
	γ*			-0.371***	-0.163**	-0.081
School sector (1 = private)	γ	---	3.199 (1.139)	---	3.105 (1.113)	3.394 (1.023)
	γ*		0.161**		0.156**	0.170***
Size	γ	---	0.008 (0.005)	---	0.007 (0.005)	0.006 (0.005)
	γ*		0.088		0.071	0.068
Futility culture	γ	---	---	---	---	-4.449 (2.792)
	γ*					-0.121
Pupil level						
Grade (1 = sixth)	γ	4.996 (0.658)	5.166 (0.762)	4.967 (0.652)	5.197 (0.778)	4.917 (0.789)
	γ*	0.222***	0.230***	0.221***	0.231***	0.219***
Gender (1 = girl)	γ	---	-1.762 (0.472)	---	-1.738 (0.471)	-1.702 (0.429)
	γ*		-0.088***		-0.087***	-0.085***
Grade retention	γ	---	-6.813 (0.681)	---	-6.774 (0.688)	-6.252 (0.699)
	γ*		-0.246***		-0.245***	-0.226***
Parental support	γ	---	1.345 (0.413)	---	1.360 (0.413)	0.161 (0.412)
	γ*		0.073***		0.074***	0.009
SES (ref: service class)						
Blue-collar	γ	---	-5.915 (0.815)	---	-5.734 (0.820)	-4.226 (0.791)
	γ*		-0.224***		-0.217***	-0.160***
Technicians	γ	---	-4.857 (0.746)	---	-4.750 (0.753)	-3.771 (0.743)
	γ*		-0.182***		-0.178***	-0.142***
Self-employed	γ	---	-3.902 (0.958)	---	-3.888 (0.957)	-3.158 (0.928)
	γ*		-0.093***		-0.093***	-0.076***
Lower white collar	γ	---	-1.863 (0.645)	---	-1.813 (0.643)	-1.341 (0.574)
	γ*		-0.081**		-0.079**	-0.058**
Sense of futility	γ	---	---	---	---	-3.149 (0.348)
	γ*					-0.239***
Variance components						
Between schools	τ_0	23.847***	10.810*	18.488***	9.538*	2.920
Within schools	σ^2	74.709***	60.258***	74.702***	60.137***	54.882***

* p < 0.05, ** p < 0.01, *** p < 0.001;

Conclusion

This study aimed to improve our understanding of the impact of the ethnic and socio-economic composition of schools on pupils' academic achievement. More specifically, we investigated whether pupils' sense of futility and schools' futility culture mediate the effects of the ethnic and socio-economic makeup of primary schools in Flanders on math achievement.

The results of the initial multilevel analyses do indicate that the ethnic and socio-economic composition of schools are related to pupils' academic performance. Indeed, the share of immigrant pupils and the proportion of pupils from a blue-collar working-class background were found to correlate with lower math achievement among both immigrant and native Belgian pupils. However, after taking variables such as family SES and prior academic achievement into account, ethnic composition was no longer found to be significantly associated with achievement, whereas the SES composition still was. This finding is in accord with most of the other studies that have been conducted in different countries, which have shown that socio-economic composition matters more than the ethnic composition in terms of academic achievement (van der Slik et al., 2006; Ryabov and Van Hook, 2007; Dumay and Dupriez, 2008).

How then, should we explain the remaining impact of SES composition? We theorized that pupils' sense of futility and schools' futility culture might account for the impact of compositional school characteristics. Our empirical results support this idea. There is a significant association between the proportion of working-class pupils at school and pupils' sense of futility and futility culture. These dispositions, in turn, were found to mediate the relationship between SES composition and academic achievement. That is, after controlling for the effects of a sense of futility and futility culture, SES composition was no longer found to be related to pupils' math achievement. This holds true for both immigrant and native pupils.

Before we discuss the implication of our results, it is important to keep in mind a few weaknesses of this study. First of all, our data included only math achievement and consequently we do not have evidence on how school composition affects other achievement. However, Driessen (2002) has demonstrated that the ethnic and socio-economic makeup of the primary schools in the Netherlands have more effect on language achievement than on math achievement. Therefore, it is possible that we underestimate the impact of school composition on academic achievement. A second drawback of this study is that we only considered the influence of school-level and pupil-level variables, and failed to include any classroom-level variables. However, we did this because our sample was not suitable for running a three-level model, and the focus of the research project was on the impact of school composition. Similarly, other contexts (e.g. neighborhood, country) might also have an impact on academic achievement (Brannstrom, 2008; Kauppinen, 2008). We suggest that future research should examine the impact of the characteristics of these

contexts as well. A third potential limitation of this study is related to the cross-sectional design of our data: we could only indirectly rule out selection effects. For instance, we only had a limited measure of pupils' previous academic achievement. Future research with longitudinal data could (partly) overcome this problem.

With regard to educational policy, our study does clarify that the composition of schools matters in terms of students' academic achievement. Nevertheless, socio-economic composition matters more than ethnic composition. However, our results indicate that even socio-economic desegregation may not be needed if it is possible to reform schools that have a higher share of working-class pupils, to become more like schools that produce more favorable dispositions. While school improvement is a difficult task, it is still feasible in the middle and the long term (Stoll and Myers, 1998). Following Bourdieu's writings on reflexivity, which is proposed as a key concept that should be deployed for social change (Bourdieu and Wacquant, 1992) we believe that reflexive education might be necessary for effective school reform. Indeed, group-based feelings such as sense of futility are likely to have an impact on academic achievement in an unreflective and subconscious manner. This means that pupils are not aware that their academic performance is influenced by their feelings. Thus a reflexive education implies that pupils become aware of these educational processes *through* schooling. In other words, pupils should be taught about the social determinants of their academic achievement, such as the impact of social class contexts on their feelings toward learning. However, a reflexive education should be encouraging and embrace a non-deterministic approach. This should include teaching that some pupils are in a socially disadvantaged situation, while emphasizing that, despite this, their efforts can make a difference, and that it is possible to beat the system. Such a reflexive education is a key means of decreasing pupils' sense of futility and schools' futility culture.

Nevertheless, the decision whether or not to desegregate schools should not be based solely on the criterion of educational achievement. If policy-makers do consider desegregation, such a reallocation policy should fundamentally differ from the early forced desegregation attempts in the United States, where Black students were forcibly moved to predominantly White schools. Such a policy has been shown to be fruitless and even detrimental to the educational achievement of ethnic minority students (Armor, 1995). In addition, working class and ethnic minority pupils' self-esteem have been shown to decline in middle-class schools (Gray-Little and Hafdahl, 2000). Moreover, the Belgian constitutional law prohibits any government

involvement in the parental right to freedom in choosing a school. Therefore, we propose the *voluntary* enrollment of *middle-class children* (both native and immigrant children) in predominantly working-class schools. James Coleman and his team (1966) noted that high-SES students were less negatively affected by the composition of schools. An example of an appropriate practice for policy makers is a small-scale project in Flanders named '*School in Zicht*.' This organization aims to unite middle-class parents (both native and immigrant) who choose to enroll their children (voluntarily) in a so called 'concentration school'. It is argued that there are many open-minded, middle-class parents who would like to enroll their children in such schools, but are afraid to do so because they believe that their children will be isolated (Albertijn and Smeyers, 2009). With this in mind, 'School in Zicht' attempts to reassure parents by providing ample information about these schools and as the opportunity for parents to enroll their children together with other middle-class parents from ethnically diverse backgrounds. Given that our results point out that a higher share of middle-class pupils might increase academic achievement, a project such as 'School in Zicht' should be encouraged.

Acknowledgements

This article was made possible through funding from the Research Foundation Flanders (FWO-project G.040908). The authors would like to thank three anonymous referees for their constructive comments. Special thanks to Ward Nouwen, Paul Mahieu, Anneloes Vandenbroucke, and Simon Boone for their helpful comments.

Hoofdstuk V: self-fulfilling prophecy en prestaties

School segregation and academic achievement: a mixed-method study on the role of self-fulfilling prophecies[5]

Abstract

This mixed-method study aims to integrate research on the effects of school segregation with that on self-fulfilling prophecies. It examines the mediating role of teacher expectancies in the impact of school composition on pupils' math achievement. Quantitative data from a survey of 2,845 pupils and 706 teachers in 68 Flemish (Belgian) primary schools, and qualitative data obtained through in-depth interviews with 26 teachers in five schools are analyzed. The multilevel analysis shows that teachers' teachability expectations are lower in schools with a high share of non-native and working class pupils, and that these teachability expectations have an indirect impact on pupils' achievement, through pupils' feelings of academic futility. The qualitative analysis reveals that the lower teacher expectations in these schools are largely triggered by alleged linguistic deficiencies and problematic language use of the pupils, and that school staff persistently communicate these low expectations to pupils.

[5] Dit hoofdstuk is in review in *Teachers College Record*

Introduction

In educational research on children's academic performance, few topics have received more attention than the consequences of school segregation and the impact of self-fulfilling prophecies. In the aftermath of the historic decision of the United States Supreme Court that ended *de jure* school segregation (Brown v. Board Of Education, 1954), the impact of school ethnic and socioeconomic composition on academic achievement has been investigated in hundreds of studies (for meta-reviews see Driessen, 2007; van Ewijk & Sleegers 2010a,). On the other hand, after the Second World War a research tradition on teacher expectancy effects started from the core idea that teachers' expectations of pupils' academic achievement can markedly affect pupils' actual level of academic performance (Becker, 1952; Rosenthal & Jacobson, 1968; Brophy, 1983), that is, these expectations can be a self-fulfilling prophecy (Merton, 1968).

Despite that both research traditions (on the impact of school segregation and on self-fulfilling prophecies) apparently grew up independently of each other, they were originally considered interrelated, as in the early research conducted by Kenneth Clark (1955) – who had a major impact on the US Supreme Court decision. Clark was convinced that school segregation stigmatized Black children and that pupils in Black schools might be the victims of low teacher expectations, causing educational inequality and underachievement in segregated schools (see Wineburg, 1987; Cooper, 1979). In other words, Clark suggested that the impact of school ethnic composition was mediated by a self-fulfilling mechanism. However, from then onwards, until the contemporary era of multilevel studies, virtually no research has investigated whether teacher expectations and self-fulfilling prophecies account for the impact of school composition on academic achievement (for an exception that implicitly integrated these two research approaches see Rumberger & Palardy, 2005). Consequently we know little about the role of teacher and pupil expectancies with respect to the impact of socioeconomic and ethnic school composition on pupils' academic achievement.

We identified three main reasons why these two research traditions have not yet been integrated. First of all, most studies on the impact of school composition focused on its effects on pupils and more specifically, on their academic achievement. However teachers and their cognition might be equally affected by compositional school characteristics (Lee & Loeb, 2000; Van Houtte, 2011); and only recently have researchers started to investigate these potential effects (e.g. McKown & Weinstein,

2008). Secondly, research on the effects on academic achievement has tended to focus more on the question *what* the effects of school composition are, than to question *why* they might occur. Consequently, the factors that might account for the impact of school composition, including the mediating role of teacher and pupil expectations, have been neglected. Thirdly, most studies on teacher expectation effects have investigated *individual* teachers' expectations of individual pupils. However, from a theoretical point of view, school composition might be more strongly related to teachers' expectations at the organizational level (i.e. school-level), and an increasing body of empirical research emphasizes the importance of these *collective* teacher attitudes and beliefs (e.g. Halvorsen, Lee, & Andrade, 2009).

The main purpose of this mixed-method study is to overcome this research lacuna and to investigate whether and how self-fulfilling prophecies account for the impact of school composition on pupils' academic achievement. More specifically, using quantitative data, we will investigate whether teachers' individual and collective teachability expectations are shaped by the ethnic and socioeconomic makeup of schools and whether these collective expectations mediate the impact of school composition on academic achievement. While quantitative data can provide us with information on statistical effects and their sizes, they are less useful in understanding *how* these effects occur. Therefore qualitative evidence will be used to gain insight into the processes through which school composition affects teachers' cognition and the processes through which teachers' beliefs are communicated to the pupils (see Riehl, 2001).

School composition effects

Ever since James Coleman and his team (1966) published their classic study, the impact of ethnic and socioeconomic school composition on pupils' academic achievement has been analyzed in hundreds of studies (for meta-reviews see Driessen, 2007; van Ewijk & Sleegers, 2010a). Most have been conducted in the US (e.g. Orfield, 1983; Wells, 1995; Bankston & Caldas, 1996, 1998; Rumberger & Palardy, 2005; Ryabov & Van Hook, 2007). However, the issue has become increasingly popular among European sociologists and educational researchers (for the UK: Strand, 1997; for France: Felouzis, 2003; Boado, 2007; for the Netherlands: Driessen, 2002; for Belgium: Dumay & Dupriez, 2008; for Norway: Fekjaer & Birkelund, 2007; for an international comparison: Dronkers, 2010). With a few

exceptions, these studies have demonstrated that school socio-economic composition is related to academic achievement, that is, pupils going to schools with a higher share of children from a higher socio-economic background were found to perform better academically. There is less consensus as to the impact of school ethnic composition: while some authors suggest that a higher concentration of ethnic minority and immigrant (non-native) pupils is related to lower academic performance (e.g. Driessen, 2002; Dumay & Dupriez, 2008), others do not find a significant relationship, in particular when individual socioeconomic status (SES), ethnic background and previous academic achievement are taken into account (e.g. van der Slik, Driessen, & De Bot 2006; Fekjaer & Birkelund, 2007).

Existing research on the impact of compositional school characteristics is strongly focused on effects on pupils. However, it is not too far-fetched to hypothesize that the socioeconomic or the ethnic make-up of schools may also have an impact on teachers and their cognition. While teachers have general conceptions about teaching, they are inclined to adjust these conceptions to the contextual factors of the school (Finn, 1972). In particular, the compositional features of the school may play a decisive role, since teachers' evaluations are liable to existing social stereotypes regarding schools with certain student compositions (see Van Houtte, 2011). For instance, in Flanders –the northern part of Belgium where this study was conducted – schools with large numbers of non-native pupils are commonly called 'concentration schools', which is a pejorative term. In the public discourse, a 'concentration school' is almost a synonym for a school with low academic performances.

Starting from the influential work of Rist (1970), it is repeatedly found that a pupil's *individual* social-class and ethnic background have a small but important influence on teacher expectations, that is, more favorable teacher expectations are found for ethnic majority and higher SES pupils, even after controlling for actual levels of academic achievement (Harvey & Slatin, 1975; Dusek & Joseph, 1985; Jussim, Eccles, & Madon, 1996; van den Bergh et al., 2010). However, only recently have studies started to examine the effects of socioeconomic or ethnic school *composition* on teachers' cognition. Indicative of this type of research are the growing number of works from Valerie Lee and her colleagues (Lee, Dedrick, & Smith, 1991; Lee & Loeb, 2000; Halvorsen, Lee, & Andrade, 2009) and the works of Mieke Van Houtte and her team (Van Houtte, 2003, 2004, 2011; Van Maele & Van Houtte, 2009, 2011). Lee and colleagues found that teachers' responsibility (i.e. their willingness to hold themselves accountable for the learning of their students) is lower in schools that

enroll a higher share of low SES and ethnic minority students, both at the individual teacher level and at the collective school level. In the works of Van Houtte (2004, 2011) collective (school level) teacher beliefs and expectations are conceptualized as a part of *staff culture*, where culture is defined as 'a set of cognitions shared by members of a social unit' (Van Houtte 2011, p. 85). In these studies it is shown that in schools with a higher share of low SES and ethnic minority students, as well as in vocational schools, teacher culture is less academically-oriented and teachers exhibit lower levels of trust in their students.

This study's first research objective is to examine whether and how the composition of the student body has an impact on teachers' cognition. More specifically, using quantitative data, we will examine whether teachers' teachability expectations – that is teachers' expectation that the students at school are teachable – are related to the socioeconomic and ethnic composition of the school. We will investigate both teachability expectations at the individual teacher level and at the collective school level. Analogous to Van Houtte (2004, 2011) these collective teachability expectations are conceptualized as *teachability culture*. From what is stated above, we expect that the teachability expectations of individual teachers and the staff's teachability culture will be lower in schools that enroll a higher share of low-SES and ethnic minority pupils. Additionally, drawing upon qualitative data obtained through interviews with teachers and principals, we will explore the factors through which school compositional features eventually shape these teachability expectations.

Teacher expectancy effects

Even if teachability expectations are determined by the socioeconomic and ethnic composition of schools, they must be associated with pupils' level of achievement in order to account for the impact of school composition on academic achievement. Research on the impact of teacher expectancies dates back at least to the work of Howard Becker (1952) who argued that a problematic teacher-student relationship emerges when working class students do not meet the standards of the 'ideal pupil' which teachers hold. However, the issue of teacher expectations became widely known after the pioneering work of Rosenthal and Jacobson (1968). In their 'Pygmalion experiment' teachers were told that some of their pupils were 'bloomers' and likely to make large progress over the year of the experiment. Although these 'bloomers' were

randomly selected, eight months later they did make actually larger progress than other pupils in their school. The Pygmalion study had a large impact on public and scientific thinking. Only ten years later, Rosenthal and Rubin (1978) were able to conduct a meta-analysis that examined 345 studies on expectancy effects. In the popular press, writers had begun to argue that teacher expectancies are major reasons for racial, social class and gender inequalities (for a review see Wineburg, 1987). However, starting from the early eighties, influential works have shown that these claims were oversimplified and exaggerated (Cooper, 1979; Brophy, 1983; Jussim, 1989; Jussim & Eccles, 1992). While not disproving the idea of the self-fulfilling prophecy, these studies have shown that the size of teacher expectation effects are rather small and that teachers' expectations were more accurate—that is consistent with pupils' previous achievements—than biased. Therefore when examining teacher expectation effects, we should not expect very large effect sizes and we should control for pupils' previous academic performance.

Jussim (1986) provides an integrative theoretical framework of the underlying causal mechanism of teacher expectations and self-fulfilling prophecies. He distinguishes three sequential stages: the first step is that a teacher develops expectations about a pupil's achievement which might be based on information gathered from prior interactions with the pupil, such as previous achievements, ethnicity, social class or gender. The second step is that a teacher behaves differently according to his or her expectations. This is the most detailed studied part of the self-fulfilling process. For instance, Rosenthal (1973) distinguished four mechanisms by which teachers might hinder students' educational progress, including the social-emotional climate they create towards high expectation pupils, the amount of feedback pupils receive, the amount and the quality of the subject material offered and the chances provided to ask or to answer questions. The third and the final step is that pupils react consistently with teacher expectations. Regarding this final stage of the self-fulfilling process, Jussim (1986) adds a crucial point: different teacher expectations and treatment may be *indirectly* related to pupils' academic achievement. More specifically, teachers may have an impact through pupils' beliefs. Jussim (1986, p. 439) thus states, 'One of the most important ways differential treatment may influence students is by affecting their perceptions of control over academic outcomes'. The perception of having control over academic success is a strong determinant of academic achievement as many studies have shown that when students do not believe that their effort will lead to success or believe that they are

incapable, they will be likely to perform poorly (for a review: Findley & Cooper, 1983). Therefore it is theorized that pupils who are confronted with low expectations from their teacher will be inclined to believe that they have no control over their academic success, which will ultimately lead to lower levels of performance. Therefore, in this study we will investigate whether teachability expectations have an indirect effect on academic achievement via pupils' feelings of having no control over academic achievement. At the pupil level, these feelings of lack of control are assessed as *sense of academic futility* (Brookover et al., 1979). Following the previous conceptualization of culture as a set of cognitions shared by members of a social unit, we also investigate the impact of pupils' shared feelings of lack of control over academic success, i.e. the impact of their *futility culture*.

Jussim (1986, p. 429) defines a self-fulfilling prophecy as a 'situation in which a teacher's expectations about a student's future achievement evoke from the student performance levels consistent with the teacher's expectation'. It is clear that this definition, as well as most previous studies on teacher expectation effects, is strongly focused on the individual relationship between a teacher and a student. However, teachers do not only have expectations about individual pupils, but also about the group of students in their school (Van Houtte, 2011). According to Brophy (1983), teachers' differential treatment of groups of pupils is as widespread as the differential treatment of individual pupils, and is an equally strong mediator of the effects of expectancy on achievement. Moreover, expectations with respect to a whole group are communicated more directly than expectations of individual pupils (Cooper, 1985). Therefore in this study, our measure of teachability focuses on expectancies regarding the group of pupils in the school rather than on individual pupils.

We are only aware of two studies that have investigated the mediating role of teacher cognitions at school level to explain the impact of school composition on pupils' academic performance. Rumberger & Palardy (2005) have shown that collective teacher expectations (among other process variables) explains the impact of school SES composition on academic performance. Similarly, Van Houtte (2003) has found that academic staff culture accounts for the impact of school SES composition on individual pupils' propensity to fail.

The second research objective of this study is thus to investigate whether and how the effects of school composition can be explained by self-fulfilling prophecies. Specifically, quantitative data will be used to examine whether the impact of socioeconomic and ethnic school composition on pupils' academic achievement is

mediated by teachers' teachability culture, pupils' sense of futility and futility culture. In addition, drawing upon qualitative evidence, we will explore how teachability expectations are expressed by school staff and communicated to pupils.

Methodology

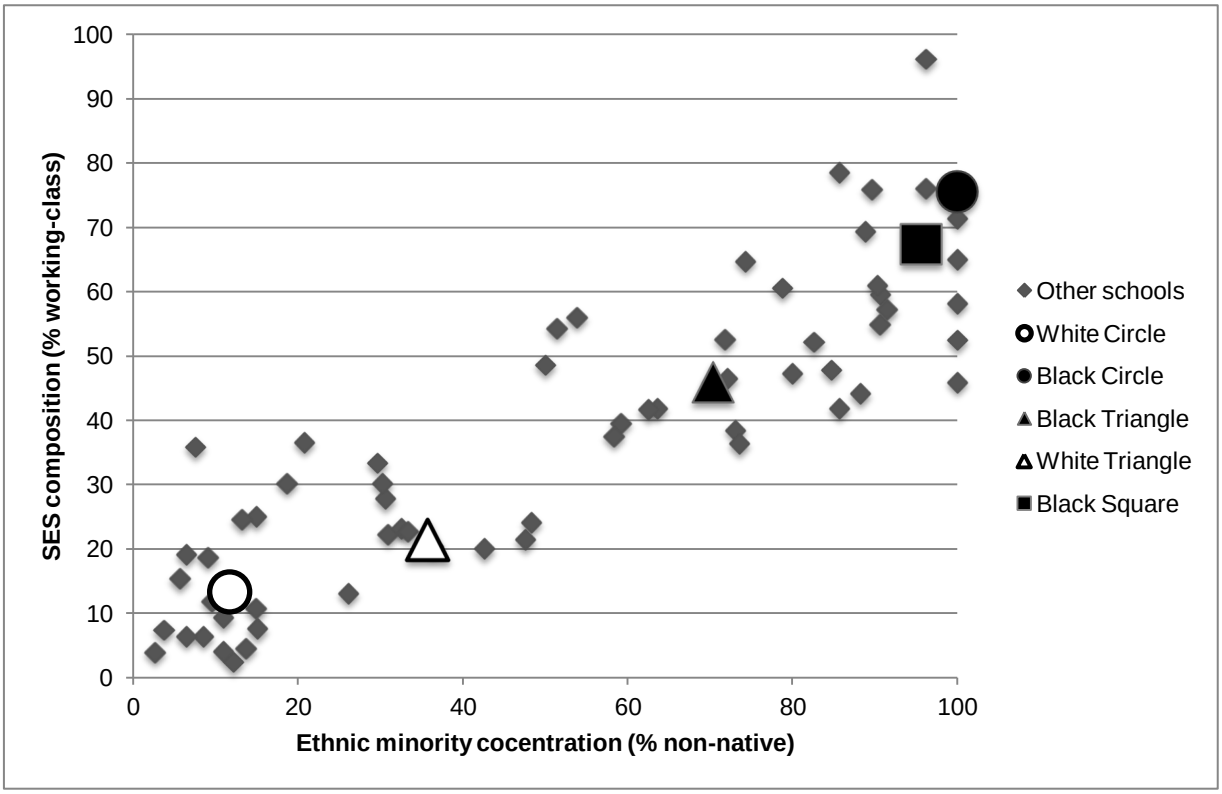
Sample

We use qualitative and qualitative data gathered as part of the SIPEF-project. Quantitative data was collected during the academic year 2008–2009 from 2,845 pupils and 706 teachers in a sample of 68 primary schools in Flanders. Multistage sampling was conducted. In the first instance, in order to encompass the entire range of ethnic composition, we selected three cities in Flanders that had relatively ethnically diverse populations. Second, using data gathered from the Flemish Educational Department, we chose 116 primary schools within these selected cities and asked them to participate: 54 per cent of them agreed to. Because the non-response rate was not related to the ethnic composition of schools, the schools in the dataset represent the entire range of ethnic composition, from those with almost no non-native pupils to some composed entirely of non-natives (see Figure 1). In all the schools that agreed to participate, our research team surveyed all the fifth-grade pupils present during our visit. Additionally, all teachers in these schools were asked to fill in a questionnaire. If there were fewer than 30 fifth-grade pupils present then we surveyed all the sixth-grade pupils as well. Given a time limitation, we could not test all curriculum subjects; we focused on math achievement, since a large proportion of the respondents were not native speakers of Dutch and math tests are less linguistically biased than subjects such as reading (Abedi, Hofstetter, & Lord, 2004). To assure that the questions were curriculum-based, the school principals were asked to approve the test. Two schools were removed from the analysis because these schools could not confirm that the test was curriculum-based. Therefore all quantitative analyses represent the remaining 66 schools, including 2,782 pupils and 692 teachers.

The qualitative data was collected during the academic year 2009–2010 from five schools selected from the 66 schools described above. These five schools were intentionally selected as representative of the entire range of ethnic and socioeconomic composition, in order to assess potential differences across various

school compositions (see Figure 1). To reflect their ethnic composition, we use the pseudonyms *White Circle, Black Circle, Black Triangle, White Triangle* and *Black Square* to refer to these schools (see Figure 1). In all five, a researcher conducted in-depth interviews with the school principals in addition to four or five teachers; a total of 26 respondents are interviewed. The interviews took place in the school. Except for one, all the teachers were native Belgians. Their age range s was 27-58, with a median age of 44. During the interviews, teachers were asked to reflect upon themselves, their profession as teachers, their schools in general, colleagues, pupils, parents, and the perceived differences between schools and pupils.

Figure 1. Ethnic and socioeconomic school composition. Qualitatively examined schools are marked



Research Design

In this study, we use a mixed-method approach involving both qualitative and quantitative data and methods. A *complementarity design* is used, 'in which results from one dominant method type are enhanced or clarified by results from another method type. Using interpretivist interviews that aim for depth and contextual

relevance to supplement post-positivist surveys conducted for breadth and representativeness might be considered a classic complementarity design' (Caracelli & Greene, 1997, p. 23).

The quantitative data was made up of a clustered sample of pupils and teachers which was nested within the schools and involved data at different levels (individual and school-level). Multilevel modeling was therefore most appropriate (SAS© Proc Mixed; Singer, 1998). Before explaining how the multilevel models were constructed, three points should be noted. First, there was a very high correlation between SES and ethnic school composition (i.e. between the proportion of working class pupils and non-native pupils at school-level; Pearson $r = 0.885$; see Table 2 and Figure 1). This meant that including both variables in the same model could cause severe multicollinearity problems. Therefore, following Dumay and Dupriez (2008), we decided to include both compositional variables in different sets of models. Secondly, in scale variables, responses were imputed for missing values using item correlation substitution: a missing value for one item is replaced by the value of the item correlating most highly with it (Huisman, 2000). Thirdly, to assess whether it is legitimate to speak of futility *culture* or teachability *culture*, we examine whether an individual-level sense of futility and teachability expectations is shared among respondents within the schools. This is done by calculating an index of 'Mean Rater Reliability' (MRR) based on a one-way analysis of variance: MRR = (between mean square - within mean square)/between mean square. The MRR must be a minimum of 0.60 to permit an aggregation at the school level (see Shrout and Fleiss 1979; Glick 1985). We provide the MRR for futility culture and teachability culture in the *School-Level Variables* section.

The qualitative analysis is based on semi-structured, in-depth interviews, in which 'the interviewer asks certain, major questions the same way each time, but is free to alter the sequence and to probe for more information' (Fielding 1993, p.136). The in-depth approach was necessary to create an informal atmosphere that would allow the respondents to speak at length with the interviewer and generate mutual trust, a process that increases the reliability of the data. During the interviews, the researcher intentionally avoided posing direct questions about school composition or teachability expectations as we did not want to influence or bias respondents' answers. Instead these issues emerged during the interviews, mainly from the respondents themselves. The interviews were conducted in Dutch. Due to the translation into English, some nuances and typical Dutch expressions may be lost in

this report. All interviews were audio-taped and transcribed. These transcriptions were analyzed with detailed reading and successive open and focused coding (Esterberg, 2002). For this coding process, we used qualitative data software Nvivo 9©. Evidence from the qualitative data will be illustrated by means of quotes from the interviews. In order to assure anonymity, we use pseudonyms.

Research Objective 1

In the quantitative element of the first research objective, we investigate the impact of schools' ethnic and socioeconomic composition on individual teachability expectations. To rule out accuracy and selection effects, we control for previous achievement, school denomination and school size at the school level. At the individual teacher level, we control for gender, years of experience, parental SES and teacher type (see Variables section). Secondly, we investigate the impact of school ethnic and socioeconomic composition on teachers' collective teachability culture, controlling for previous achievement, school denomination and school size. In the qualitative element of this first research objective, we explore how teachers and principals think about the socioeconomic and ethnic composition of the school and why compositional school features affect their beliefs and expectations regarding their pupils.

Research Objective 2

For the second research objective, we start by quantitatively estimating the impact of socioeconomic and ethnic school composition on pupils' academic achievement. To rule out selection effects, we control at the school level for previous achievement composition, school denomination and size; and for gender, grade, parental SES and ethnicity at the individual pupil level. To explore whether school ethnic or socioeconomic composition are related to pupils' academic performance, we include teachers' teachability culture in the second model to assess whether it mediates the impact of school composition. In the third model, we include pupils' sense of futility and futility culture. Additionally, we provide a path-model diagram to illustrate the indirect effects. In the qualitative element of this second research objective, we will

explore whether and how the school staff communicates its beliefs and expectations to the pupils.

Table 1 Descriptive statistics for variables: frequencies, range, means (for continuous variables) and proportions/percentages (for categorical variables) and standard deviations (SD).

	N	Min	Max	Mean	SD
School level					
Ethnic cocentration (% non-native)	66	2.63	100	52.669	33.999
SES composition (% working class)	66	3.95	96.15	38.505	22.289
Previous achievement composition (% grade retention)	66	0	72.41	29.293	17.468
School denomination (1 = catholic)	66	0	1	0.485	
School size	66	91	526	225.458	104.528
Pupils' futility culture	66	1.22	3.09	2.092	0.279
Teachers' teachability culture	66	2.64	4.53	3.454	0.378
Individual pupil-level					
Math achievement	2754	6	60	41.432	10.645
Sense of futility	2772	1	5	1.990	0.699
Grade (1 = sixth)	2782	0	1	0.300	
Gender (1 = girl)	2765	0	1	0.513	
Previous achievement (grade retention)	2725	0	1	0.269	
Ethnicity (1 = non-native)	2782	0	1	0.485	
SES					
Blue-collar	2760	0	1	0.401	
Technicians	2760	0	1	0.153	
Self-employed	2760	0	1	0.070	
Lower white-collar	2760	0	1	0.179	
Service class	2760	0	1	0.196	
Individual teacher-level					
Teachability expectations	657	1.74	4.93	3.444	0.487
Gender (1 = male)	675	0	1	0.188	
Ethnicity (1 = non-native)	686	0	1	0.061	
Parental SES					
Blue-collar	679	0	1	0.196	
Technicians	679	0	1	0.199	
Self-employed	679	0	1	0.094	
Lower white-collar	679	0	1	0.292	
Service class	679	0	1	0.219	
Years of experience	690	1	41	15.970	10.146
Teacher type (1 = subject)	692	0	1	0.408	

Individual pupil-level variables

Academic achievement. The last dependent variable in our analysis is math achievement, measured using a test developed by Dudal and Deloof (2004), which is based on standardised educational attainment levels for Flemish students in the fifth grade of their primary education. The test consists of 60 items, covering elementary arithmetic, problem solving, fractions, decimals and long division. The test yielded a Cronbach's alpha of 0.91. In our data pupils achieved on average 44.43 (SD = 10.65), in a theoretical range from 0 to 60 (Table 1).

Sense of futility. Pupils' feelings of academic futility are measured using the sense of futility scale (Brookover et al., 1978). The four items are 'People like me will not have much of a chance to do what we want to in life,' 'People like me will never do well in school, even though we try hard,' 'At school, students like me seem to be unlucky,' and 'Achievement at school is just a matter of luck.' Each item has five possible responses ranging from 'absolutely disagree' (scored 1) to 'completely agree' (scored 5). While this scale yielded a relatively low Cronbach's alpha (0.62), an explanatory factor analysis revealed that there was one underlying dimension for this scale, explaining 47.46% of the variance. In our data pupils scored 1.99 on average (SD = 0.70; Table 1).

Grade. Our research concentrated on fifth- and sixth-grade pupils. Therefore in 2009, most of the respondents were aged 11 (about 49%) or 12 (about 36%). Given the high correlation between age and grade (Cramer's V=0.64; p<0.001), we had to choose one of these two variables for the model. Because the sample was unbalanced in terms of grade, we opted for the grade (Table 1).

Gender. The pupils' sample was divided equally with respect to gender, with around 51% female respondents (boy = 0, girl = 1; Table 1).

Previous achievements (grade retention). Our data did not include a direct measure of pupils' previous achievement. Initially, our intention was to measure previous achievement using pupils' Grade Point Average (GPA) from previous years. However, many schools did not provide pupils' GPA, so we were unable to include this in our model. As an alternative metric, we asked pupils whether they had to repeat a year in the past. This is because retention is regarded as a reliable indicator of poor previous academic performance (Alexander, Entwisle, & Dauber, 1994). Table 1 indicates that 27% of the pupils in our sample are repeaters.

Ethnicity. Regarding pupils' ethnic background, we distinguished between native Belgians and non-natives. In line with the official Flemish definition of non-native groups (in Dutch: *'allochtonen'*), the principal criterion was the birthplace of pupils' grandmothers. If these data were missing, we used parents' birthplaces instead, as most non-native pupils in Flanders are second- or third-generation immigrants. As is common practice, and in line with the official Flemish definition of non-native groups, students of Western European origins were considered to be of native descent. As such, we created a dichotomous variable (0=native, 1=non-native). Table 1 shows that 48% of our respondents are categorized as non-natives.

SES. We measured the family SES of the pupils by assessing the occupational prestige of the father and mother (Erikson, Goldthorpe, & Portocarero, 1979). The highest-prestige occupation of the parents was used as an indicator for the SES of the family. We identified five distinct groups, which are hierarchically ordered with regard to social status: (1) unemployed and blue-collar workers (working class), (2) technicians and supervisors, (3) small proprietors and self-employed workers, (4) white-collar employees, (5) higher-grade professionals and entrepreneurs (service class) (Table 1).

Individual teacher-level variables

Teachability expectations. Teachers' teachability expectations regarding their pupils are measured by 31 items of the 'Teachable Pupil Survey' (Kornblau, 1982). The scale is made up of 31 items assessing expectations of pupil characteristics encompassing school-adjusted behaviors (such as 'concentrate well', 'enjoy school work'), cognitive-motivational behaviors (such as 'intelligent', 'curious'), and personal-social behaviors (such as 'calm', 'confident'). The items such as 'I think that in this school the pupils in general are inquisitive', were rated from 'absolutely disagree' (scored 1) to 'definitely agree' (scored 5). Teachers scores on average 3.44 (SD = 0.49), whereas the scale ranged between 1.74 and 4.93 (Table 1). Cronbach's alpha for the teachability expectations scale was 0.95.

Gender. Most teachers in our sample were female (81%; Table 1).

Ethnicity. Teachers' ethnicity was determined by self-identification. Teachers were asked to identify themselves as being from native-Belgian or non-native

background. 6% of the teachers in our sample identified themselves as being non-native (Table 1).

Parental SES. The parental SES of teachers was measured similarly to those of pupils (cf. supra; Table 1).

Years of experience. Teaching experience was measured by the number of years that a teacher had been working in his/her participating school. On average teachers in our sample had 16 years of teaching experience (*SD* = 10.15; Table 1).

Teacher type. We distinguish between those who teach regular classes (code 0) and specific subjects, such as physical education or music (code 1). In our sample, around 60% of the teachers are identified as regular class teachers (Table 1).

School-level variables

Ethnic concentration. The ethnic make-up of a school is measured by the percentage of non-native respondents in the schools. On average, the percentage of non-native pupils is 52.67 % (*SD*=34.00), ranging from 2.63% to 100% (Table 1). We refer to Table 2 for the bivariate correlations among school-level variables.

SES composition. The socioeconomic composition of the school was calculated by aggregating the individual family SES of pupils. Specifically, this was done by calculating the percentage of pupils from a working-class background. On average, the proportion of these pupils was 38.50% (*SD*=22.29), ranging from 3.95% to 96.15% (Table 1).

Previous achievement composition. The previous achievement composition of a school is measured by the percentage of pupils who are repeaters. On average, the percentage of pupils who have experienced grade retention was 29.29% (*SD*=17.47), ranging from 0% to 72.41% (Table 1).

School denomination. The school denomination variable was split between 34 publicly run schools and 32 privately run Catholic schools. This reflects the educational situation in Flanders where around half of the schools are Catholic schools. It should be noted that in the Flemish educational system no distinction is made between publicly run schools and privately run (Catholic) schools with respect to state support.

School size. We determined school size from the total number of pupils, using data gathered from the Flemish Educational Department. The number of pupils varied

from 91 in the smallest school to 526 in the largest. The schools had an average of 225 pupils (*SD*=104.53; Table 1).

Futility culture. Pupils' futility culture is measured by aggregation of individual pupil-level scores of sense of futility. As mentioned in the Research Design section, to examine whether feelings of futility were truly shared within schools, we calculated the index of Mean Rater Reliability (MRR). The sense of futility scale yielded a MRR of 0.73. This means that speaking of futility *culture* is legitimate as feelings of futility are *more* shared within schools than they are shared between schools. The mean futility culture was 2.09 (*SD*=0.28), within a range of 1.22 to 3.09. A one-way analysis of variance shows that the mean sense of futility differs significantly between the schools ($p < 0.001$).

Teachability culture. Teachers' teachability culture was measured by aggregating individual teacher-level scores for teachability expectations. The teachability expectations yielded a MRR of 0.88. This means that speaking of teachability *culture* is also legitimate. The mean score for teachability culture is 3.45 (*SD*=0.38), within a range of 2.64 and 4.53 (see Table 1). A one-way analysis of variance shows that the mean teachability expectation differs significantly among the schools ($p < 0.001$).

Table 2 Bivariate Pearson correlations between school features (n = 66)

	1.	2.	3.	4.	5.	6.	7.
1.	1						
2.	0.885***	1					
3.	0.671***	0.636***	1				
4.	-.026	-0.005	-0.292*	1			
5.	-0.299*	-0.354**	-0.398**	0.018	1		
6.	0.531***	0.585***	0.475***	0.053	-0.092	1	
7.	-0.683***	-0.658***	0.623***	-0.070	0.207	-0.567***	1

Notes: 1. Ethnic concentration; 2. SES composition; 3. Previous achievement composition; 4. Denomination; 5. Size; 6. Futility culture; 7. Teachability culture.

* p < 0.05, ** p < 0.01, *** p < 0.001

Results

Research objective 1

The first research objective is to investigate whether and how school compositional characteristics influence teachability expectations. In order to assess whether the school context matters with respect to these expectations, the variance components

from the unconditional models are assessed (Table 3, Model 0). We are particularly interested in school-level variance, computed as the between-school variance component divided by the sum of the within-school and between-school variance [τ0/(τ0+σ2)]. We calculate that a very large amount of the variance in teachers' teachability expectation lies between schools 46.12% ($p < 0.001$). This justifies the need for a multilevel analysis.

Models 1 and 2 in Table 3 make clear that both ethnic and socioeconomic school composition are related to teachers' teachability expectations, i.e. teachers have lower teachability expectations in schools with a higher share of non-native pupils (standardized gamma coefficient γ* = -0.370, $p < 0.001$) and a higher share of working class pupils (γ* = -0.312, $p < 0.001$). Nevertheless, teachability expectations are almost equally influenced by pupils' previous academic performance (γ* = between -0.266 and -0.330, $p < 0.01$, Table 3). This means that in schools with a higher proportion of pupils who have experienced grade retention, teachers are inclined to expect their pupils to be less teachable, even when their previous academic performance is taken into account. It should be noted that no individual teacher-level variable included in our models was significantly related to teachability expectations.

We find similar results for teachers' collective teachability expectations, i.e. their teachability culture (see Table 4). A lower level of teachability culture is found in schools with a higher share of non-natives (standardized beta β* = -0.422, $p < 0.001$, Model 1) and a higher share of working class pupils (β* = -0.396, $p < 0.001$, Model 2). However, teachers collective teachability expectations are slightly more strongly related to pupils' average previous achievements (β* = between -0.435 and -0.475, $p < 0.001$, Table 4).

Table 3. Results of multilevel analysis for teachers' individual teachability expectations. Gamma coefficients (γ), standardized gamma coefficients (γ*), standard errors (in parentheses) and variance components

		Model 0	Model 1	Model 2
School Level				
Ethnic concentration	γ	---	-0.005 (0.001)	---
(% non-native)	γ*		-0.370***	
SES composition	γ	---	---	-0.007 (0.002)
(% working class)	γ*			-0.312***
Previous achievement composition	γ	---	-0.007 (0.003)	-0.009 (0.003)
	γ*		-0.266**	-0.330***
School denomination	γ	---	-0.141 (0.064)	-0.145 (0.067)
(1 = Catholic)	γ*		-0.146*	-0.150*
Size	γ	---	0.000 (0.000)	0.000 (0.000)
	γ*		-0.040	-0.065
Teacher level				
Gender	γ	---	0.049 (0.040)	0.046 (0.040)
(1 = female)	γ*		0.040	0.037
Ethnicity	γ	---	0.094 (0.064)	0.088 (0.065)
(1 = non-native)	γ*		0.046	0.044
SES				
(reference: service class)				
Blue-collar	γ	---	0.073 (0.049)	0.071 (0.049)
	γ*		0.059	0.057
Technicians	γ	---	0.053 (0.047)	0.052 (0.047)
	γ*		0.043	0.042
Self-employed	γ	---	-0.011 (0.059)	-0.015 (0.059)
	γ*		-0.007	-0.009
Lower white collar	γ	---	0.029 (0.042)	0.030 (0.042)
	γ*		0.027	0.028
Year teaching experience	γ	---	-0.002 (0.002)	-0.002 (0.002)
	γ*		-0.033	-0.032
Teacher type	γ	---	0.050 (0.032)	0.050 (0.032)
(1 = non-regular)	γ*		0.051	0.050
Variance components				
Between schools	τ_0	0.119***	0.042***	0.047***
Within school	σ^2	0.139***	0.137***	0.137***

* p < 0.05, ** p < 0.01, *** p < 0.001

Table 4 Results of regression analysis for teachers' collective teachability culture. Beta coefficients (β), standard errors (in parentheses) and standardized beta coefficients (β*).

		Model 1	Model 2
School Level			
Ethnic concentration	β	-0.005 (0.001)	---
(% non-native)	β *	-0.422***	
SES composition	β	---	-0.007 (0.002)
(% working class)	β *		-0.396***
Previous achievement composition	β	-0.009 (0.003)	-0.010 (0.003)
(% grade retention)	β *	-0.435***	-0.475***
School denomination	β	-0.157 (0.067)	-0.154 (0.069)
(1 = Catholic)	β *	-0.207*	-0.204*
Size	β	0.000 (0.000)	0.000 (0.000)
	β *	-0.091	-0.114
Adjusted R^2		0.542***	0.536***

* p < 0.05, ** p < 0.01, *** p < 0.001

The in-depth interviews with teachers and principals may explain why the ethnic and SES composition of schools are related to teachers' teachability expectations and culture. As noted in the Research Design section, during interviews the researcher avoided posing direct questions about school composition as long as the issue was not brought up by respondents themselves. Nevertheless, the results indicate that among teachers in schools with a high share of non-native and working class pupils (*Black Square, Black Triangle* and *Black Circle*) the topic of school composition was highly primed. These teachers spontaneously discussed school composition at the start of the interview, for instance when they were asked about their background or their first impressions of the school:

> **Researcher:** I think it [the recorder] is recording. Ok, my first question is how old are you?
>
> **Laura**: Oh, 34
>
> **Researcher**: 34. And how long have you been teaching?
>
> **Laura**: 11 years
>
> **Researcher**: For 11 years. And have you always been a teacher in this school?
>
> **Laura**: At this school for 9 years and one and a half years elsewhere, *it was also a migrants' school*. (*Teacher, Black Square, female, 34*)
>
> ---
>
> **Researcher:** And what was your overall impression of the school when you started working here?
>
> **Tom**: At that time, I took a summer job at a playgroup. And that playgroup enrolled children from the housing projects of * *[a city]*. It was basically the same audience [of pupils] as now

in this school. So I was used to it. Back then, they were also … not only Turks, but also Italians, Greeks, it was always a mixed audience and here it was the same. (*Teacher, Black Circle, male, 54*)

For teachers in schools with a low share of non-native and working-class pupils (*White Circle* and *White Triangle*), the school composition was taken for granted: they did not spontaneously mention the socioeconomic or ethnic composition of their school. When asked about their first impressions of the school, these teachers were more focused on issues such as its size or the design of the buildings:

Researcher: And when you started working here, what was your overall impression of the school?
Koen: As a child, I was a pupil in this school. At that time the school was not fully surrounded with buildings, like it is now. It was 40 years ago, you know, and now they have built a lot of new buildings and housing estates (*Teacher, White Circle, male, 52*)

Ann: The first time I came here, I had a feeling like: wow, walls all over, nothing else. As a young teacher, I thought, I will never stay here. That was my first impression, these buildings frightened me a lot, I was not used to it (*Teacher, White Triangle, female, 44*)

This does not mean that in *White Triangle* and *White Circle* teachers did not say anything about school composition. Instead they brought up the topic when the researcher asked how schools might *differ* from each other. For instance:

Caroline: I think that schools can differ depending on the [educational] level. I think it is also dependent on the target group of the school. If I compare with * *[the name of a school nearby]*, which have a greater percentage of migrants and therefore they have different ability groups (*Teacher, White Circle, female, 37*)

Piet: Anyway, the neighborhood [can make a difference]. If I compare with the school where my children are enrolled, that is the easiest to compare with, anyhow the

> neighborhood and that is also strongly related to the social origins [of pupils] (*Teacher, White Triangle, male, 44*)
>
> ---

As we have established that school composition is more influential in the cognition of teachers in schools with a higher share of non-native and working class pupils, we can explore how this affects their teachability expectations. To our surprise, teachers working in schools with a high concentration of non-native and working class pupils evaluated school composition in very positive terms. Working in such contexts is described as challenging and exciting. Saskia even noted that she would never want to work in a school other than *Black Square* and Jaclyn explained that the ethnic school composition of *Black Triangle* was the reason why she chose to enroll her own child there:

> **Researcher:** And on which aspects does that [*the school composition*] have an influence?
> **Saskia**: I think personally it is very enriching and challenging. I would no longer want another type of school, although here, it costs much more effort and it is intensive. I find it much more satisfying here. We are straightforward and the solidarity here, I find it very rewarding. I wouldn't want it any different. (*Teacher, Black Square, female, 30*)
>
> ---

> **Jaclyn:** I think this multicultural environment is an incredible learning environment. And this is one of the reasons why my daughter is enrolled here in this school, because we do not live nearby, but I'm glad she is here in this school, because, because I think it important that she is exposed to it, and thus that she grows up tolerant. (*Teacher, Black Triangle, female, 30*)
>
> ---

However, teachers perceived one major problem related to the high share of non-native and working class pupils: language (i.e. the use of standard Dutch) and the alleged linguistic deficiencies of the pupils. Apart from one teacher (Simon, *Black Circle, 56)* – who talked about the benefits of bilingualism – all teachers expressed (implicitly and explicitly) lower teachability expectations due to these language related issues. Some examples to illustrate this:

Kelly: They lag behind, *already before they started, at baseline*… Without knowing the [Dutch] language properly, you will lag behind in understanding things. You must also use the language for math or if you want to do science, or later, to have conversations with your boss, you know. Even if you are very smart and know a lot of things, without mastering the common language, it will be difficult. (*Teacher, Black Circle, female, 26*).

Sonja: We have a [Dutch] language problem, without any doubt. *Already the toddlers, when they are two-and-half years old*. That is a language problem that we have to deal with and it makes it less easy sometimes. (*Principal, Black Circle, female, 50*).

Kristof: When they *[the pupils]* have to deal with more Dutch speaking children, when there is more interaction, then it is easier to learn the language and they'll make a little more effort to learn the language. Honestly, if we could choose, then we would prefer 50/50, maybe with 50 percent non-natives and 50 percent Belgians. That might have been the best mix. (*Teacher, Black Circle, male, 32*).

Jaclyn: Anyhow, I believe that because in a school where most children do not speak Dutch properly, the level of language *cannot* be high or will be less than in a school where everybody speaks Dutch. [Here] we have to teach another way and we have to start at the basics anyway (*Teacher, Black Triangle, female, 30*).

Thus, pupils in schools with high ethnic minority share are expected to have a language deficiency at the baseline, *before* they enter the school, resulting in low teachability expectations. The same argument is made for native-Belgian working class pupils who speak in dialect, i.e. non-standard forms of Dutch:

Sarah: Here, there are equally children with Belgian roots, but they speak a lot of dialect and so they have also a lot of problems with the [Dutch] language. (*Teacher, Black Square, female, 29*)

These low teachability expectations due to alleged linguistic deficiencies were so persistent that even in *White Circle*, a school with few non-native and working class pupils, teachers believed that it must be difficult to teach in other schools that enrolled high numbers of non-native and working class pupils, due to these alleged linguistic deficiencies in Dutch. For instance Koen, who admitted to having no experience at all with any other type of school composition, already had a clear belief that it must be 'terribly difficult' to be a teacher in those schools:

> **Researcher**: And what factors make schools different from each other?
> **Koen:** It is difficult to tell because I don't know other schools, not well enough, I have never been a teacher elsewhere. But I can *imagine* that a school with another audience *[composition],* let's say a school in *street [*a street with a high concentration of non-native and working class pupils*], first and foremost, they've got a lot of foreign children, a lot of them barely speak the [Dutch] language. I have not experienced it, but when I think that in the * [*a school nearby with a high concentration of non-native, working class pupils*] there are Bulgarians and Slovenians that barely speak the [Dutch] language. I think it must be terribly difficult to be a teacher there and basically to teach something (*Teacher, White Circle, male, 52*)
> ---

The linguistic backgrounds of the few non-native pupils in *White Circle*, on the other hand, were considered to be unproblematic: according to the teachers, the parents of these non-native pupils had deliberately chosen to enroll their children in the *White Circle* because they did not want their child to speak their mother tongue at school:

> **Koen**: Here, we have little trouble with that *[language deficiencies]*. Because most [non-natives] who come to our school, those two [pupils] in the 6th grade, they came here because they didn't want to go to an inner-city school because there are too many Turks and Moroccans there and little Dutch is spoken. Their parents have decided themselves: my children have to speak better Dutch because they will grow up here and later they have to work here. (*Teacher, White Circle, male, 52*)
> ---
> **Hans:** For instance, the migrant children here in this school, their folks have chosen to come to our school because here Dutch is spoken, I mean, people who want to become integrated, you know, of course it is to their benefit that their children speak Dutch well (*Teacher, White Circle, male, 58*).

The use of dialects by native Belgian pupils was also considered unproblematic in the *White Circle*, as there were very few working-class pupils who spoke them:

> **Researcher** Do the children speak standard Dutch here or does it happen that they speak in a dialect?
>
> **Lise**: Real dialect, that is rarely spoken here, I mean, we all tend to not pronounce the last letters of a word, so students and teachers also don't do it sometimes, but isn't that standard Dutch? You know, it's not, not a true dialect (*Teacher, White Circle, female, 47*)
>
> ---

Research objective 2

Given that teachers hold lower teachability expectations in schools with a high share of non-native and working class pupils, we examine next whether collective teachability culture might account for the potential impact of ethnic and SES composition on pupils' academic achievement.

The variance components from Model 0 (Table 5) indicate that 26.33% ($p < 0.001$) of the variance in pupils' match achievement occurs between schools. This justifies the need for a multilevel analysis. In Model 1 (Table 5), we examine the impact of ethnic school composition on pupils' math achievement, controlling for several variables at the individual and school levels. The percentage of non-native pupils at school is *not* significantly related to pupils' academic achievement ($\gamma^* = -0.120$, $p = 0.13$). Additional analyses have shown that pupils' previous achievements and individual-level SES are particularly responsible for the initial negative association between ethnic school composition and academic achievement (analyses not shown here). In Model 2 (Table 5), we re-do this analysis for the school SES composition. Our results indicate that even when control variables are taken into account, the percentage of pupils from a working class background at school level is negatively related to pupils' math achievement ($\gamma^* = -0.235$, $p < 0.01$). Therefore in Model 3 we examine whether teachability culture mediates the impact of SES composition on pupils' academic achievement. However, Model 3 indicates that teachability culture is not significantly related to academic achievement ($\gamma^* = 0.057$, $p = 0.49$). Nevertheless, in Model 4 it becomes clear that pupils' sense of futility ($\gamma^* = -0.213$, $p < 0.001$) and futility culture ($\gamma^* = -0.258$, $p < 0.001$) are negatively associated

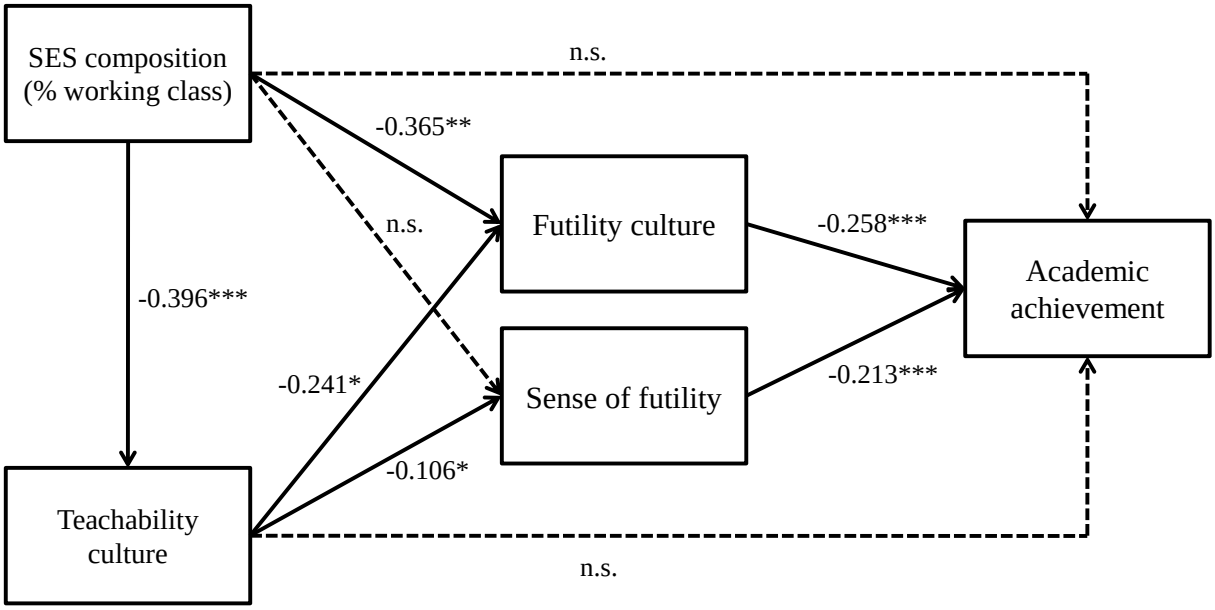
with pupils' math achievement. Most importantly, after these variables are entered into the model the effect of SES composition is noticeably reduced and SES composition is no longer significantly related to academic achievement ($\gamma^* = -0.103$, $p = 0.15$). Thus, while pupils' individual and shared feelings of having no control over academic success account for the impact of socioeconomic composition on academic achievement, teachers' teachability culture does not have a *direct* significant impact. However, a multilevel path analysis (see diagram in Figure 2) shows that teachers' teachability culture is instead *indirectly* related to pupils' academic achievement. Figure 2 shows that in schools with a higher share of working class pupils, teachers have a reduced teachability culture ($\gamma^* = -0.396$, $p < 0.001$). In turn, a greater teachability culture is related both to lower futility culture ($\gamma^* = -0.241$, $p < 0.05$) and a lower sense of futility among pupils ($\gamma^* = -0.106$, $p < 0.05$). A greater sense of futility and futility culture ultimately result in lower math achievement (Figure 2).

Table 5. Results of multilevel analysis for math achievement. Gamma coefficients (γ), standardized gamma coefficients (γ*), standard errors (in parentheses) and variance components

		Model 0	Model 1	Model 2	Model 3	Model 4
School Level						
Ethnic cocentration:	γ	---	-0.037 (0.025)	---		---
(% non-native)	γ*		-0.120			
SES composition:	γ	---	---	-0.110 (0.035)	-0.100 (0.038)	-0.048 (0.032)
(% working class)	γ*			-0.235**	-0.214**	-0.103
School denomination	γ	---	2.266 (1.258)	2.748 (1.178)	3.020 (1.254)	3.486 (1.016)
(1 = Catholic)	γ*		0.107	0.130*	0.143**	0.165***
Size	γ	---	0.007 (0.006)	0.006 (0.006)	0.006 (0.006)	0.008 (0.005)
	γ*		0.071	0.057	0.063	0.078
Previous achievement	γ	---	0.037 (0.053)	0.077 (0.048)	0.095 (0.055)	0.104 (0.045)
composition	γ*		0.060	0.126	0.155	0.170*
Teachability culture	γ	---	---	---	1.582 (2.283)	-0.878 (1.898)
	γ*				0.057	-0.031
Futility culture	γ	---	---	---	---	-9.890 (2.258)
	γ*					-0.258***
Pupil level						
Grade	γ	---	5.534 (0.529)	5.552 (0.537)	5.569 (0.539)	4.825 (0.502)
(1 = sixth)	γ*		0.238***	0.239***	0.240***	0.208***
Gender	γ	---	-1.833 (0.407)	-1.815 (0.406)	-1.823 (0.406)	-1.774 (0.393)
(1 = girl)	γ*		-0.086***	-0.085***	-0.086***	-0.083***
Previous achievement	γ	---	-5.808 (0.416)	-5.825 (0.422)	-5.829 (0.422)	-5.217 (0.422)
(grade retention)	γ*		-0.241***	-0.242***	-0.242***	-0.217***
Ethnicity	γ	---	-0.958 (0.586)	-0.853 (0.592)	-0.854 (0.589)	-0.693 (0.539)
(1 = non-native)	γ*		-0.045	-0.040	-0.040	-0.033
SES (ref: service class)						
Blue-collar	γ	---	-5.139 (0.572)	-5.048 (0.573)	-5.034 (0.573)	-3.978 (0.558)
	γ*		-0.236***	-0.232***	-0.231***	-0.183***
Technicians	γ	---	-5.119 (0.669)	-5.057 (0.672)	-5.045 (0.671)	-4.167 (0.655)
	γ*		-0.173***	-0.171***	-0.170***	-0.141***
Self-employed	γ	---	-3.522 (0.743)	-3.503 (0.743)	-3.501 (0.743)	-2.864 (0.718)
	γ*		-0.084***	-0.083***	-0.083***	-0.068***
Lower white collar	γ	---	-2.171 (0.596)	-2.130 (0.594)	-2.129 (0.594)	-1.509 (0.544)
	γ*		-0.079***	-0.077***	-0.077***	-0.055**
Sense of futility	γ	---	---	---	---	-2.798 (0.220)
	γ*					-0.213***
Variance components						
Between schools	τ_0	30.469***	16.686***	13.998***	14.261***	7.024**
Within schools	σ^2	85.231***	65.922***	65.813***	65.822***	61.513***

* p < 0.05, ** p < 0.01, *** p < 0.001

Figure 2. Path diagram of multi-level analysis on pupils' math achievement using SES composition: standardized gamma coefficients (γ*) as path coefficients.



Notes:
At school level controlling for: previous achievement composition, denomination and school size
At pupil level controlling for: grade, gender, ethnicity, SES, previous achievement.

These quantitative analyses indicate that teachers' teachability culture has an indirect impact on pupils' academic achievement *through* pupils' beliefs. Thus these teachability expectations must be implicitly or explicitly communicated to them. The qualitative in-depth interviews might explain how the teachability expectations explored above are expressed. While there are many ways through which teacher expectations might be communicated to pupils (see Rosenthal 1973), our focus will be on expressions of low teachability expectations following from pupils' language use and alleged linguistic deficiencies, as the results from the first research objective suggests that these linguistic issues are overwhelming important in teachers' cognition.

First, most teachers working in schools with a high share of non-native pupils explained that pupils (and also their parents) are required and frequently reminded to speak exclusively in Dutch, arguing that not speaking Dutch properly is expected to result in poor academic achievement:

> **Researcher:** What do you think the decisive factor [regarding academic achievement]?
>
> **Sarah:** Here, *the language is the big problem*, the language plays an important role. That is, they [the pupils] go outside and they immediately start speaking Turkish. In the hall, again

Turkish, with their friends back in Turkish, when they quickly have to tell something, again Turkish. *So we are like constantly, all day long:* 'speak Dutch with each other, say it in Dutch' (*Teacher, Black Square, female, 29*)

Tom: the only thing that we have a problem with is that when these people [the parents] are in the playground with their children or with neighbors or family and they start speaking a foreign language. But we stress: 'please speak Dutch, especially when you are at the school, because *that can make or break everything, if you do not master the [Dutch] language, then your child will lag behind*' (*Teacher, Black Circle, male, 54*)

These quotes show the implicit (Sarah) and the explicit (Tom) expressions of low teachability expectations on the part of school staff convinced that speaking another language than Dutch results in low achievement for pupils. On the other hand, when asked about *socioeconomic* school composition, teachers and principals argued that both socioeconomic and ethnic composition are strongly interrelated. Implicitly, they noted that ethnic composition is the *marker* of socioeconomic school composition, which is considered the ultimate determinant of linguistic competency and the proper use of Dutch: socioeconomically better situated non-native parents and children are marked as 'almost one of us':

Researcher: Is it really about the ethnic mix or is it about the socioeconomic backgrounds of the students?
Sonja: I think it is a combination of both. I think it is impossible to regard it unconnectedly. Yes, I think it has to do with both. You see, often, those people that are socioeconomically disadvantaged are also the ones who make little effort to speak the [Dutch] language well. It is very interrelated. (*Principal, Black Circle, female, 50*)

Rik: [Non-native] pupils with high-skilled parents usually do also master the Dutch language very well. And at home they also speak Dutch all the time. *They have almost the same way of living as we do and they speak Dutch and everything.* While other [low-skilled] parents insist on speaking Turkish at home. *So they have difficulties with the language at school, with the result that their academic performance is much lower than other pupils*, right? (*Teacher, Black Square, male, 27*)

Thus the difficulty of distinguishing between ethnic and socioeconomic composition is not only a matter of statistics (see Research Design section), but also emerged during the interviews.

Because the use of a 'foreign' language or non-standard Dutch is expected to result in reduced academic performance, school staff noted that the use of the mother tongue is formally forbidden in schools and that aversion toward pupils' mother tongues is communicated by strong and persistent encouragement of the exclusive use of standard Dutch:

> **Researcher**: How about pupils' mother tongues in the school?
> **Rik**: Normally, we forbid that, so it is not allowed to speak Turkish at school. But we see that when they are among each other, or when there are conflicts, that they quickly switch to the Turkish language. So we have to constantly watch over it, because even if they speak very quietly, we see that they trying to speak Turkish all the time (*Teacher, Black Square, male, 27*).
> ---
>
> **Maria:** It is difficult to tackle this Turkish speaking at the playground because we have more than 90 percent Turkish children. One says something in Turkish and the other responds to it in Turkish, *even if we address them eight-three times a day.* But, that would be less the case if we had a more healthy school mix (*Principal, Black Square, female, 30*)
> ---

An exception to this rule is *Black Triangle*, where pupils were allowed to speak their mother tongue in the playground, but not in the classroom. Still, the preference for Dutch monolingualism was expressed:

> **Nadia:** Here, children are allowed to speak their own language, but not in the classroom. So we don't address it in the playground. It might happen that we will say: if possible in Dutch, it is better in Dutch, but we set them free in the playground (*Teacher, Black Triangle, female, 37*).
> ---

Secondly, the aversion to pupils' mother tongues of the is also articulated by the interior design of the schools. For instance, during our visit in the *Black Square*, we

noticed several posters (on each corner in the halls and on each door), in which '*Here we speak Dutch*' was written. In *Black Circle,* teachers were planning to use these types of decorations:

> **Kristof:** we are planning to put Dutch proverbs on posters and hang them around the school to make clear that Dutch is very important, that it is something we should work on. (*Teacher, Black Circle, male, 32*).

Moreover, some teachers would punish pupils for not speaking Dutch properly. For instance:

> **Katja:** The school regulations state that only Dutch should be spoken and otherwise they [pupils] get punished.
> **Researcher**: And what do you specifically mean by punishing?
> **Katja:** For example I work with tally marks, when they have five strokes, than they have to write down a page or clean the playground. But it is dependent on the group. With some groups, I have to punish more strictly and quickly (*Teacher, Black Circle, female, 45*).

Overall, the teachers and principals from schools with a high share of non-native and working-class pupils express lower teachability expectations toward pupils and their parents because they are convinced that their incorrect use of Dutch or the speaking of their mother tongue results in poor academic achievement. These low teachability expectations are implicitly and explicitly communicated through restrictive language policies, persistent encouragement of the exclusive use of Dutch and punishment for speaking of the mother tongue.

Discussion

The aim of this mixed-method study was to examine whether and how self-fulfilling prophecies mediate the impact of school composition on pupils' academic achievement. Our two research objectives are investigated using both qualitative and quantitative data. For the first, we investigate quantitatively whether socioeconomic and ethnic school composition contribute to teachers' teachability expectations at the individual teacher level and the collective school level (i.e. teachability culture). Additionally we use in-depth qualitative data from interviews with teachers and principals to investigate *why* school compositional characteristics are related to teachability

expectations. As our second research objective, we examine quantitatively whether teachers' teachability culture accounts for the impact of school composition on pupils' academic achievement. As it is theorized that teacher expectancies might especially have an impact on pupils' academic achievement through pupils' perceptions of control over their achievement, we investigate the role of pupils' sense of academic futility and collective school-level feelings of academic futility (i.e. futility culture). In-depth interviews are used to explore the processes through which teachers express their expectations of pupils.

First, the results of multilevel regression analysis show that both teachability expectations and teachability culture are dependent on the socioeconomic and ethnic composition of schools. While being mainly accurate, i.e. related to the previous achievement composition of schools, teachability expectations and culture are found to be lower in schools with a higher share of non-native and working class pupils. The in-depth interviews indicate that school composition primes most teachers' answers on these issues in schools with a higher share of working class and non-native pupils. The linguistic backgrounds of these pupils are found to be considered particularly problematic in these schools. To be more specific, we identify the speaking of mother tongues by non-native pupils and the use of non-standard Dutch by working class pupils as the most important contributors to lower teachability expectations. Regarding our second research objective, the results of the multi-level analyses show that socioeconomic composition is related to pupils' academic achievement. More specifically, we find that pupils perform less well in schools with a higher share of working class pupils. While teachability expectations are not directly related to pupils' academic achievement, the path analysis shows that teachability expectations are indirectly related to pupils' academic performance, more specifically through pupils' sense of futility and futility culture. Most importantly, we show that pupils' individual and shared feelings of having no control over academic success accounts for the impact of socioeconomic school composition; that is, after controlling for sense of futility and futility culture, socioeconomic composition is no longer significantly related to pupils' academic achievement. The in-depth interviews indicate that staff working in schools with a large share of non-native pupils communicates their lower teachability expectations by arguing that the incorrect use of Dutch and speaking the mother tongue result in poor academic achievement. In particular, the language use of working class pupils is considered problematic, while the linguistic backgrounds of socioeconomically better situated pupils are considered 'similar to ours'. These low

teachability expectations are implicitly and explicitly communicated through restrictive language policies at school, persistent encouragement of the exclusive use of Dutch, punishment for speaking of a mother tongue and decoration of schools with signs and posters announcing the importance of Dutch monolingualism.

Before we discuss the implication of our results, it is important to mention two weaknesses in this study. First, our data included only math achievement and consequently we do not have evidence on how school composition affects other achievement. However, Driessen (2002) has demonstrated that the ethnic and socio-economic makeup of primary schools in the Netherlands have more effect on language achievement than on math achievement. Therefore, it is possible that we underestimate the impact of school composition on academic achievement. A second potential limitation of this study relates to the cross-sectional design of our data: we could only indirectly rule out selection effects. For instance, we only had a limited metric for pupils' previous academic achievement, i.e. grade retention. Future research with longitudinal data could (partly) overcome this problem.

With regard to educational policy, our study does clarify that the composition of schools matters in terms of students' academic achievement. Nevertheless, socioeconomic composition matters more than ethnic composition. However, our results indicate that even socio-economic desegregation may not be needed if it is possible to reform schools with a larger share of working class pupils so that they become more like schools that produce more favorable teachability expectations. In particular, teachers' attitudes and beliefs regarding pupils' linguistic backgrounds should be the focus of educational reforms. More specifically, we suggest that policy-makers should pay more attention to the potential benefits of the multilingual abilities of pupils, rather than solely focusing on their supposed linguistic deficiencies in schools with a high share of non-native and working class pupils. Even if multilingual instruction is not feasible due to legal and practical constraints, the valorization of multilingualism should be striven for (Agirdag, 2009a, 2010a).

However, existing research suggests that teacher expectations and beliefs are difficult to alter (e.g. Newmann, Rutter, & Smith 1989) and some authors suggest that socioeconomic desegregation should be striven for, arguing that 'school cultures' are inherently linked to socioeconomic and ethnic composition, as schools tend to respond to the demands of parents (e.g. Wells, 1995; Frankenberg & Orfield, 2007). Moreover, the decision whether or not to desegregate schools should not be based solely on the criterion of educational achievement (see Agirdag, Van Houtte, & Van

Avermaet 2011a for the impact of school segregation on non-cognitive outcomes in Flanders). If policy-makers do consider desegregation, such a reallocation policy should fundamentally differ from the early forced desegregation attempts in the United States, where Black students were forcibly moved to predominantly White schools. Such a policy has been shown to be fruitless and even detrimental to the educational achievement of ethnic minority students (Armor, 1995). Moreover, the Belgian constitutional law prohibits any government involvement in the parental right to freedom in choosing a school. Therefore, we propose the voluntary enrollment of middle class children (both native and non-native immigrant) in predominantly working class schools. James Coleman and his team (1966) noted that high-SES students were less negatively affected by the composition of schools. An example of an appropriate practice for policy makers is a small-scale project in Flanders named '*School in Zicht*.' This organization aims to unite middle class parents who voluntarily choose to enroll their children in a so called 'concentration school'. It is argued that there are many open minded, middle class parents who would like to enroll their children in such schools, but are afraid to do so because they believe that their children will be isolated (Agirdag & Van Houtte, 2011b). With this in mind, 'School in Zicht' attempts to reassure parents by providing ample information about these schools and the opportunity for them to enroll their children together with other middle class parents from ethnically diverse backgrounds. Given that our results point out that a higher share of middle class pupils might increase academic achievement, projects such as 'School in Zicht' should be encouraged.

Hoofdstuk VI: sociale hypochondrie en prestaties

The perceived and actual consequences of ethnic composition: a mixed-method application of the social hypochondria theory in schools[6]

Abstract

Given that existing theoretical perspectives on the consequences of ethnic composition, such as group threat or contact theory, are limited, this article presents the social hypochondria theory (SHT) as an alternative theoretical framework to investigate perceived and actual consequences of ethnic composition. In light of the SHT, we present mixed-method evidence gathered about ethnic school composition. In-depth interviews with teachers (N=26) show that a low ethnic minority density and high ethnic diversity are considered 'healthy' for a school, while high level of ethnic minority density and low ethnic diversity are considered a threat to pupils' interethnic competence and academic achievement. On the other hand, multilevel analysis (N=2,845) shows that school ethnic composition has little impact on actual levels of academic achievement. We argue that the SHT offers an improved framework to examine the perceived and actual consequences of ethnic composition.

[6] Dit hoofdstuk is in review in *British Journal of Sociology*

Introduction

Continuing immigration in various Western countries has triggered an enormous body of research on how people respond to the presence of immigrants and ethnic minorities (hereafter termed non-natives). These studies are characterised by exceptionally high methodological quality as these researchers tend to use state-of-the-art methods (e.g. Davidov et al, 2008; Wilkes and Corrigall-Brown, 2011) and an international comparative approach (e.g. Semyonov, Raijman, and Gorodzeisky, 2006; Pichler, 2010), and are mostly well supported theoretically (e.g. Quillian, 1995; Esses et al., 2001; Meuleman, 2011). However, there is still room for theoretical and conceptual improvement. Here we address five points of concern. First, the impact of non-native population size on peoples' attitudes is usually theorised using group conflict/threat theories (Blumer, 1958; Blalock, 1967; Bobo, 1983). These theories generally insist that the actual or perceived group size of non-natives in a given context (country, neighbourhood, etc.) triggers feelings of economic, cultural and/or symbolic threat in the native population and that these perceived threats generate negative attitudes towards non-natives (see Quillian, 1995; Semyonov et al., 2004; Coenders et al., 2008). However, in these studies the *accuracy* of the perceived threats, and thus the actual consequences of non-native composition, is not a subject of theory, nor is it commonly empirically examined. While it can be argued that the validity of these perceived threats is of little importance regarding their influence on peoples' attitudes – that is, if people define threats as real, they are real in their influence on people's attitudes (Thomas and Thomas, 1928) – for the sake of attitudinal change it is crucial to investigate the correctness/accuracy of the perceived threats. If perceived threats do not correspond to the actual consequences of non-natives' presence, policy-makers have more evidence to invest in attitudinal change.

A second limitation is that these studies make a linearity assumption. Despite the fact that the original formulation of the group threat theory addresses curvilinearity (see Blalock, 1967), most studies simply assume that negative feelings toward non-natives will increase linearly with the number of non-natives (e.g. Quillian, 1995, Dixon, 2006). In addition, it is frequently argued that people have positive attitudes towards non-natives until a certain threshold is reached, after which a further increase in their number triggers negative attitudes (see Taylor, 1998; Wagner et al., 2006). It is not clear how to understand these initial positive attitudes towards non-natives from a group conflict/threat perspective. As such, initial positive attitudes and potential curvilinearity should be addressed in order to achieve

a more comprehensive understanding of the effects exerted by the group size of the non-native population.

Third, researchers have also found *positive* responses towards non-natives' arrival and presence using human value theories (Schwartz, 1994): values such as cosmopolitanism and universalism are found to be associated with positive attitudes (Haubert and Fusell, 2006; Davidov et al, 2008). However, these general values and attitudes might be unrelated to specific attitudes vis-à-vis the ethnic composition of *peoples' own social environment*. For instance, a person might truly have cosmopolitan values and express positive attitudes towards non-natives in general, but at the same time be strongly against the influx of non-natives when it comes to his or her own workplace or the school where their child is enrolled. In other words, a 'not-in-my-backyard' (NIMBY) principle might prevail when it comes to real-world situations in one's own social environments (see Hermansson, 2007). From the perspective of the non-native population, these concrete real-world attitudes are much more decisive than abstract attitudes. A NIMBY-proof approach might be achieved by addressing people's attitudes regarding the presence or the influx of non-natives at organisational level, in their own organisations (school, workplace, sport-club, etc.).

Fourthly, using intergroup contact theory (Allport, 1954; Pettigrew and Tropp, 2006), researchers have shown that the increasing number of non-natives in a given context might create opportunities for intergroup contact, which might reduce a sense of threat and promote positive out-group attitudes (see Wagner et al., 2006; Dixon, 2006). However, the intergroup contact theory primarily refers to situations where contact occurs between equal status role groups (see Allport, 1954) such as the contacts between pupils in a school or between residents in a neighbourhood. Moreover, the group threat/conflict approach implicitly addresses situations where different groups take equal status roles and compete with each other for scarce goods (e.g. workers competing for jobs). However, the ethnic composition of many real situations includes groups that take unequal status roles for which competition is out of the question, for instance, in a school between teachers and students or in workplaces between managers and workers. As such, existing theoretical frameworks provided little understanding about the consequences of ethnic composition regarding unequal status role groups.

Finally, within this research literature, there is much confusion about the notion of 'ethnic diversity'. Some authors just use the term to refer to the proportion of non-natives in a given context (e.g. Stolle, Soroka and Johnston, 2008; Hooghe et al.,

2009). However, this conceptualisation hardly reflects what the notion of 'diversity' implies. For instance, there is no reason to call a neighbourhood where all inhabitants are Asian immigrants more *diverse* than a neighbourhood where all inhabitants are natives. From a theoretical perspective, *ethnic diversity* primarily refers to the degree to which there are diverse ethnic groups in a given context. On the other hand, the notion of *ethnic minority density* refers to the percentage of the non-native group in a context. Existing theoretical perspectives focus primarily on the consequences of ethnic minority density as measured by the proportion of non-natives. In contrast, almost no theoretical perspectives focus directly on the impact of ethnic diversity as measured by a fractionalisation index (for a notable exception see Putnam 2007). Therefore, for the sake of conceptual clarity, a theoretical perspective on the consequences of both ethnic minority density *and* ethnic diversity is indispensable.

A theory that may overcome these limitations is the *theory of social hypochondria.* The notion of social hypochondria was recently put forward by the Dutch sociologist Willem Schinkel (2007, 2008, 2009) as a critique of the contemporary organicist view of society. This study aims to reformulate this idea into a testable theory and to illustrate how our empirical results might be interpreted in the light of the social hypochondria theory. In the empirical part of this study, we investigate how teachers perceive the impact of the ethnic composition of their schools and whether these perceptions are accurate, by examining the actual consequences of school ethnic composition. We use both qualitative and quantitative research methods: teachers' perceptions of the consequences of school ethnic composition are explored with qualitative data and the actual consequences of ethnic school composition on pupils' academic achievement level are investigated with quantitative data.

Previous studies of teachers' perceptions of the impact of school ethnic composition are limited to the few that have examined how teachers evaluate school ethnic/racial *de*segregation programs. In most general terms, these studies have shown many problems that educators associate with racially/ethnically desegregated schools (Caldas, Bankston and Cain, 2007; Horsford and McKenzie, 2008). In contrast, the impact of school ethnic composition on academic achievement is frequently studied (for a review Driessen, 2007). While some previous studies suggest that *ethnic minority density* is related to lower academic performance (e.g. Driessen, 2002; Dumay and Dupriez, 2008), others have shown that the ethnic minority density does not have an impact on pupils' level of academic achievement, at least when their

socioeconomic background and/or previous achievements are controlled for (for the US: Ryabov and Van Hook, 2007; for the Netherlands: van der Slik, Driessen and De Bot, 2006; for Norway: Fekjaer and Birkelund, 2007). We are aware of only one study that has investigated the impact of ethnic *diversity* on pupils' academic achievements: Dronkers (2010) shows that the ethnic diversity of a school has a negative impact on pupils' academic achievements.

Social hypochondria theory

Hypochondria is defined as 'preoccupation with fears of having a serious disease based on the person's misinterpretation of bodily symptoms' (American Psychiatric Association [*DSM-IV-TR*], 2000). As such, we define social hypochondria as social agents' preoccupation with fears that a given social body (e.g. school, neighbourhood, workplace, country, nation, etc.) has a serious disease/disorder, based on the social agents' misinterpretation of the symptoms occurring in that social body. The notion of social hypochondria is initially put forward by Schinkel (2007) who provides a critical account of the organicist view on society. Schinkel shows that throughout history the metaphor of corporeality has been used to a give a description to the social and political life. Like the human body, society was considered a whole consisting of hierarchically ordered parts. An early example of such a corporeal depiction of the society is Plato's image of the polis (Plato, 1971). Analogous to the human body, Plato saw the 'logos' as the head of the social body (consisting of philosopher-rulers of the polis), the 'thymos' as its spirit (consisting of guardians of the polis), and the 'eros' as the lower part of the body (consisting of ordinary people). The organicist framing continued as the dominant political mode of thought during the Middle Ages (e.g. Corpus Christi), it was present in the modern era (e.g. Leviathan as the sovereign body), and more recently the core thoughts of sociologists such as Compte, Spencer and Durkheim were inspired by an organicist view of society (see Schinkel, 2007, 2009). The idea of corporeality is not only a descriptive metaphor, a prescriptive one, as it legitimates existing power relations between various social groups. For instance the persistent power inequalities in socialist regimes were described *and* legitimised with the Marxist catch-phrase: 'the *head* of this emancipation is *philosophy*, its *heart* the *proletariat'* (Marx, 1970 [1844]:142, emphasis in original). In other words, the organicist thought includes views on both how the society *is organised* and how it *should be organised*.

Most importantly, according to Schinkel (2007, 2008) since the last decade of the twentieth century this corporeal mentality has entered an era of social hypochondria. That is, because contemporary organicist thought no longer involves a social body which aims toward an ultimate goal or because it no longer believes in meta-narratives such as the Last Judgment or the Communist Ideal State, the social body is primarily obsessed with itself. In other words, it has become a social body with amputated legs which is no longer going anywhere, stuck on its own, and finding all sorts of imagined disorders. Most important are its preoccupations and complaints about perceived threats to 'social cohesion' and 'social integration'. Schinkel (2008) argues that the social body now feels constantly threatened by those who are considered not to belong, to be non-native. This process is reinforced by the growing waves of immigration and various events such as the terrorist attacks of 9/11 and 7/7. Non-natives are increasingly *misinterpreted* as if they were *viruses* that threaten the social health of various social bodies. In Dutch-speaking countries, the otherness of immigrants (and even their grandchildren) is already articulated at the level of nomenclature with the term '*allochtonous*', which literally means 'not from this soil'.

Following from this, it can be expected that the increasing number of non-natives (viruses) in a given social body might trigger feelings of threats. However, because social agents are aware of the fact that the presence of non-natives within larger society is an irreversible fact, they may develop strategies to cope with their fears. More specifically, we argue that some ethnic compositions might be preferred over the absence of non-natives in terms of reducing feelings of threat. We distinguish two alternative views. First, an ethnic composition which stimulates the *assimilation* of non-natives might be preferred. That is, when there are few non-natives present and the non-native group is ethnically highly diverse, the social body can easily assimilate them and thus neutralise the perceived threat. Second, an ethnic composition which stimulates the *immunisation* of the social body might be preferred. That is, the social body might think that it can protect itself against (future) threats from non-natives by the presence of a limited amount of non-natives from ethnically diverse backgrounds. In corporeal terms, the social body becomes more resistant against the (future) threats posed by the viruses inevitably present in the broader society by learning how to deal with a non-threatening vaccine. Hence a low density of non-natives from ethnically diverse backgrounds might be evaluated positively as an ethnic composition that stimulates the *assimilation* of non-natives and facilitates the *immunisation* of the social body.

Thus the *perceived* and the *actual* consequences of ethnic minority density and ethnic diversity in a given social body can be framed by the social hypochondria theory. Regarding the perceived consequences of ethnic composition, the social hypochondria framework posits in general that social agents are likely to misinterpret the presence and/or the influx of non-natives as a threat to the health of their social body. As such, a high level of ethnic minority density with low ethnic diversity might be perceived as a threat to this health. However, as the presence of non-natives is an irreversible fact, a low-to-medium ethnic minority density and high level of ethnic diversity might be preferred given the belief that such an ethnic configuration stimulates the assimilation of non-natives and the immunisation of the social body. On the other hand, the *actual* consequences of non-native density and ethnic diversity in a given social context are expected to be negligible, with many empirical studies repeatedly showing that the actual impact of ethnic composition is greatly reduced when socioeconomic characteristics are controlled for (see van der Slik et al., 2006; Ryabov and Van Hook, 2007; Letki, 2008; Gesthuizen, van Der Meer and Scheepers, 2009; Hooghe et al., 2009). Hence if empirical reality indicates that the feelings of threat to the health of a given social body on account of its ethnic composition are not accurate, than these feelings should be considered a form of social hypochondria.

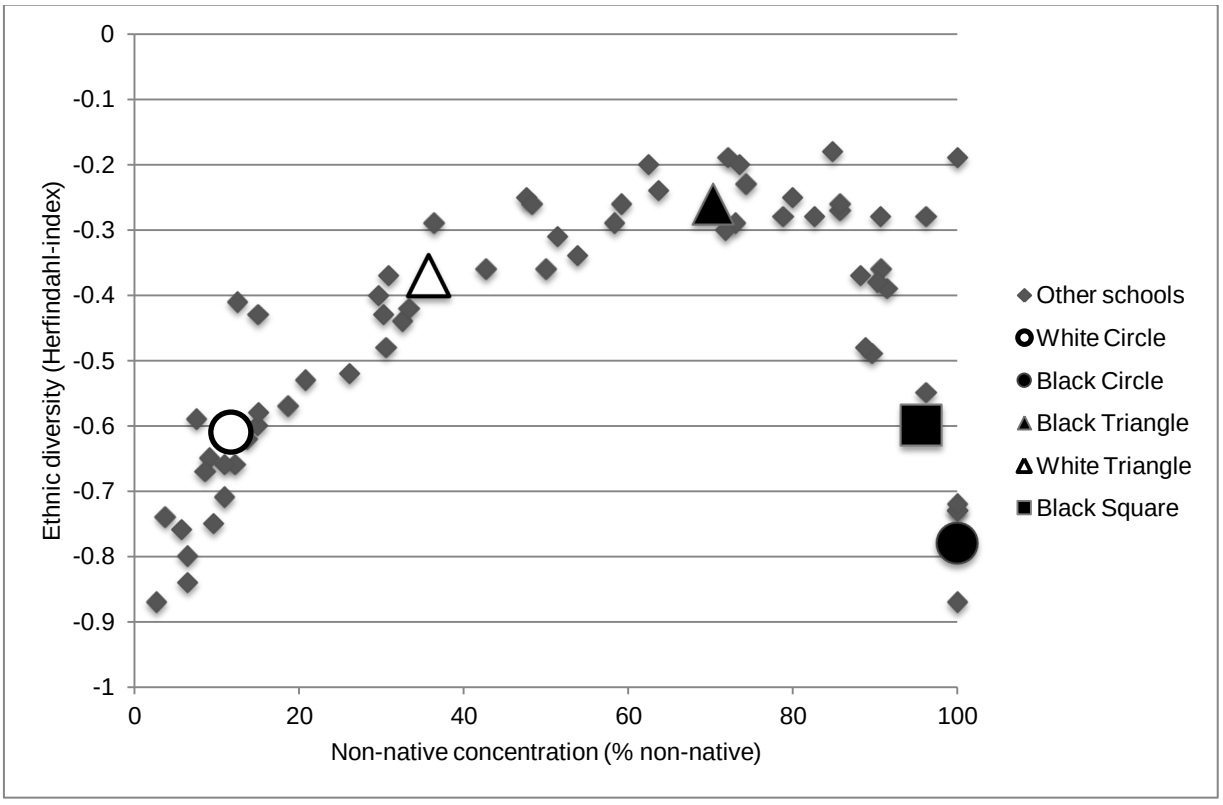
Methodology

Sample

We use qualitative and quantitative data gathered as part of the SIPEF-project. Quantitative data was collected during the academic year 2008–2009 from 2,845 pupils and 706 teachers in a sample of 68 primary schools in Flanders (Belgium). Multistage sampling was conducted. In the first instance, in order to encompass the entire range of ethnic composition, we selected three cities in Flanders that had relatively high ethnic minority density. Second, using data gathered from the Flemish Educational Department, we chose 116 primary schools within these selected cities and asked them to participate: 54 per cent of them agreed to. Because the non-response rate was not related to the ethnic composition of schools, the schools in the dataset represent the entire range of ethnic composition, from those with almost no non-native pupils to some composed entirely of non-natives (see Figure 1). In all those that agreed to participate, our research team surveyed all the fifth-grade pupils

present during our visit. If there were fewer than 30 fifth-grade pupils present then we surveyed all the sixth-grade pupils as well. Given a time limitation of two hours, we could not test all curriculum subjects; we focused on math achievement, since a large proportion of the respondents were not native speakers of Dutch and math tests are less linguistically biased than subjects such as reading (Abedi, Hofstetter and Lord, 2004). To ensure that the questions were curriculum-based, the school principals were asked to approve the test. Two schools were removed from the quantitative analysis because these schools could not confirm that the test was curriculum-based. Therefore all quantitative analyses represent the remaining 66 schools, comprising 2,782 pupils.

Figure 1. Ethnic minority density and ethnic diversity. Qualitatively examined schools are marked



The qualitative data was collected during the academic year 2009–2010 from five schools selected from the 66 described above. These five were intentionally selected as representative of the entire range of ethnic composition (see Figure 1). To reflect their ethnic composition, we use the pseudonyms *White Circle, Black Circle, Black Square, Black Triangle* and *White Triangle* to refer to these schools. Schools that are named 'Black' have a higher density of non-native pupils than schools that are named 'White'. Schools denoted with 'Triangle' are more ethnically diverse (see Variables

section) than schools named 'Square' or 'Circle' (see Figure 1). In all five schools, a researcher conducted in-depth interviews with the school principals in addition to four or five teachers, with a total of 26 respondents interviewed. The interviews took place in the school. Except for one, all the teachers were native Belgians. Their age range was 27-58, with a median age of 44.

Research Design

In this study, we use a mixed-method approach involving both qualitative and quantitative data and methods. A *complementarity design* is used, 'in which results from one dominant method type are enhanced or clarified by results from another method type' (Caracelli and Greene 1997: 23).

Qualitative analysis

The qualitative analysis is based on semi-structured, in-depth interviews, in which 'the interviewer asks certain, major questions the same way each time, but is free to alter the sequence and to probe for more information' (Fielding 1993:136). The in-depth approach was necessary to create an informal atmosphere that would allow the respondents to speak at length with the interviewer and generate mutual trust, a process that increases the reliability of the data. During the interviews, teachers were asked to reflect upon themselves, their profession as teachers, their schools in general, colleagues, pupils, parents, and the perceived differences between schools and pupils. The researcher intentionally avoided posing direct questions about the consequences of ethnic diversity or non-native density as we did not want to influence or bias respondents' answers. Instead these issues emerged during the interviews, mainly from the respondents themselves. All interviews were audio-taped and transcribed. These transcriptions were analyzed with detailed reading and successive open and focused coding (Esterberg 2002). For this coding process, we used qualitative data software Nvivo 9©.

Quantitative analysis

The quantitative data was made up of a clustered sample of pupils nested within the schools and the dependent variable (academic achievement) was normally distributed.

Therefore, the use of multilevel regression modelling was most appropriate (SAS© Proc Mixed; Singer 1998). Scale variables were entered into the models using grand mean centring. Responses were imputed for missing values using item correlation substitution: a missing value for one item is replaced by the value of the item correlating most highly with it (Huisman 2000). We begin by estimating an unconditional model to determine the amount of variance in academic achievement that occurs among schools. Then in the first model, we examine the effects of schools' ethnic diversity and ethnic minority density, while controlling for school denomination and school size at the school level, and for grade, gender, previous achievement, family SES and ethnic background at the pupil level (see Variables section). To assess whether ethnic minority density has a curvilinear effect, we enter a quadratic term as well. Hence, we square the ethnic density measure. Mean centring is used to avoid multicollinearity. In the second model, we examine whether the effects of ethnic minority density and ethnic diversity are different for different ethnic groups by entering cross-level interactions. For the sake of clarity in the model, only interaction terms that are significantly related to pupils' academic achievement are retained. In the third model, we assess whether pupils' language use (the frequency of speaking Dutch, see Variables section) has a significant effect, as this was strongly claimed by the teachers as an explanation why ethnic school composition affected pupils' academic achievement.

Variables

Academic achievement. The outcome variable in our analysis is math achievement, measured using a test developed by Dudal and Deloof (2004), which is based on standardised educational attainment levels for Flemish students in the fifth grade of their primary education. The test consists of 60 items, covering elementary arithmetic, problem solving, fractions, decimals and long division. The test yielded a Cronbach's alpha of 0.91. In our data pupils achieved on average 44.43 (SD = 10.65), in a theoretical range from 0 to 60 (Table 1).

Ethnic diversity. The ethnic diversity of a school is measured as the likelihood that two randomly selected pupils from a school are from different ethnic backgrounds. As such both the total number of different ethnic groups and their group size are taken into account. We use the Herfindahl Index (H.I.) as an index of ethnic diversity. The H.I. is calculated as $(p_{\text{ethnic group 1}})^2 + (p_{\text{ethnic group 2}})^2 + \ldots + (p_{\text{ethnic group n}})^2$.

We include 11 broad regional groups: (1) Native Belgians (46.7%), (2) Western Europeans, including pupils of Dutch, French, or German origin (5.6%), (3) Southern Europeans, including pupils of Italian or Spanish origin (6.6%), (4) Turks (13.0%), (5) Moroccans (15.6%), (6) Other North Africans (1.0%), (7) Eastern Europeans (5.8%), (8) Sub-Saharan Africans (1.8%), (9) Middle Easterners (1.2%), (10) Southeast Asians (1.7%), (11) Others (1.1%). The principal criterion to determine the ethnic groups is the birthplace of the pupils' grandparents, as almost all ethnic minorities in Flanders are first-, second- or third-generation immigrants. If these data are missing, we consider the birthplaces of pupils and their parents. The H.I. has a theatrical range of -1 to 0, where a value of -1 implies no diversity at all—that is, there is only one ethnic group enrolled in the school. A value approaching zero means total diversity: each pupil in the school has a different ethnic origin. In our data, the H.I. ranges between -0.875 and -0.177. On average, schools have a H.I. score of -0.455 (*SD*=0.199; Table 1).

Ethnic minority density. We measure the ethnic minority density in schools by means of the percentage of ethnic minority pupils in a school in our database. As is common practice, and in line with the official Flemish definition of ethnic minorities ('allochtonous') groups, students of non-Western European origins (group 2 in addition to group 1, see variable Ethnic diversity) are considered to be ethnic minorities. On average, the percentage of ethnic minority pupils is 52.67 % (*SD*=34.00), ranging from 2.63% to 100% (Table 1). There is a moderate correlation between ethnic minority density and ethnic diversity measures (Pearson r=0.414, $p < 0.001$).

School denomination. The school denomination variable is split between 34 publicly run schools (mostly municipal and state schools; score 0) and 32 privately run Catholic schools (score 1; Table 1). It should be noted that in the Flemish educational system no distinction is made between publicly run and privately run schools with respect to state support.

School size. We determine school size from the total number of pupils, using data gathered from the Flemish Educational Department. The number of pupils varied from 91 in the smallest school to 526 in the largest, with an average of 225 pupils (*SD*=104.53; Table 1).

Grade. Our research concentrates on fifth- and sixth-grade pupils. Therefore in 2009, most of the respondents were aged 11 (about 49%) or 12 (about 36%). Given the high correlation between age and grade (Cramer's V=0.64; $p<0.001$), we had to choose one of these two variables for the model. Because the sample is unbalanced in terms of grade, we opt for the grade (Table 1).

Gender. The pupils' sample is divided equally with respect to gender, with around 51% female respondents (boy=0, girl=1; Table 1).

Grade retention. Our data does not include a direct measure of pupils' previous achievement. Initially, our intention was to measure previous achievement using pupils' Grade Point Average (GPA) from previous years. However, many schools did not provide pupils' GPA, so we were unable to include this in our model. As an alternative metric, we asked pupils whether they had to repeat a year in the past. This is because retention is regarded as a reliable indicator of poor previous academic performance (Alexander, Entwisle, and Dauber, 1994). Table 1 indicates that 27% of the pupils in our sample are repeaters.

Family SES. We measure the family SES of the pupils by assessing the occupational prestige of the father and mother (Erikson, Goldthorpe, and Portocarero, 1979). The highest-prestige occupation of the parents was used as an indicator for the SES of the family. We identify five distinct groups, which are hierarchically ordered with regard to social status: (1) unemployed and blue-collar workers (working class), (2) technicians and supervisors, (3) small proprietors and self-employed workers, (4) white-collar employees, (5) higher-grade professionals and entrepreneurs (service class) (Table 1).

Ethnicity. Because the group sizes of various different ethnic groups in our data are rather low (see variable Ethnic diversity), we only distinguished four ethnic groups at the individual-level: (1) natives (45.97%), Turks (13.26%), Moroccans (15.96%), and 'others' (24.84%) (Table 1).

Language use. We measure pupils' frequency of using Dutch with seven items. Pupils indicated the degree to which they speak Dutch (1) at home with father; (2) at home with mother; (3) at home with siblings; (4) in the classroom with friends; (5) at the playground with friends; (6) outside the school with friends; (7) on the internet with friends. Each item has five possible responses ranging from 'always another language' (score 1) to 'always Dutch' (score 5). The scale yielded a Cronbach's alpha of 0.867. In our data pupils scored 4.279 on average (*SD*=0.84; Table 1).

Table 1. Descriptive statistics for variables: frequencies, range, means (for continuous variables) and proportions/percentages (for categorical variables) and standard deviations (SD).

	N	Min	Max	Mean	SD
School level					
Ethnic diversity (Herfindahl index)	66	-0.875	-0.177	-0.455	0.199
Ethnic minority density (% ethnic minority)	66	2.631	100	52.669	33.999
School denomination (1 = catholic)	66	0	1	0.485	
School size	66	91	526	225.458	104.528
Pupil level					
Academic achievement (math)	2754	6	60	41.432	10.645
Grade (1 = sixth)	2782	0	1	0.300	
Gender (1 = girl)	2765	0	1	0.513	
Grade retention	2725	0	1	0.269	
SES					
Blue-collar	2760	0	1	0.401	
Technicians	2760	0	1	0.153	
Self-employed	2760	0	1	0.070	
Lower white-collar	2760	0	1	0.179	
Service class	2760	0	1	0.196	
Ethnicity					
West-European	2782	0	1	0.459	
Turkish	2782	0	1	0.133	
Moroccan	2782	0	1	0.160	
Other	2782	0	1	0.248	
Language use	2742	1	5	4.278	0.841

Results

The perceived consequences of ethnic school composition

In the in-depth interviews with teachers and principals the school staff consistently spoke in terms of the *health* of a school to illustrate their preferences for a specific ethnic composition. Almost half of the respondents used terms like '*healthy mix*', '*healthy balance'* or '*healthy composition*' to denote how the ethnic minority density and/or the ethnic heterogeneity of a school might have an impact. For instance, Sonja argued that the *Black Circle* used to have a 'more healthy mix' because the student body was more ethnically diverse, while at this moment it only includes a majority of Turkish and Moroccan pupils:

> **Sonja**: We used to have that, there were a lot of nationalities here, we used to have Poles, Turks, Moroccans, and we had Italians. And now it's mainly Turkish and Moroccan children and Turkish children are the majority. I think it was *a more healthy mix* with other cultures and religions together than it is now (*Principal, Black Circle, female, 50*)
>
> ---

In particular, when the lack of ethnic diversity was combined with high levels of ethnic minority density, the school composition was considered 'unhealthy'. A fifty-fifty composition of native and non-native children would still be a healthy mix:

> **Sonja**: Here in this city, it is going to be a bit of a problem because the birth rate is fifty-fifty right now and so at a certain point all schools in this city going to have a fifty-fifty mix. But that is still *a healthy mix*, I should say. But here, I think it is… We did all what we could do to stop this. (*Principal, Black Circle, female, 50*)
>
> ---

Similarly, in the *Black Square*, where almost all pupils are from an ethnically Turkish background, Saskia argued that it would be 'healthier' for the school to have a more ethnically diverse student body. A 'healthy mix' must represent the ethnic composition of the Belgian society:

> **Saskia**: I think the ideal school is a school with *a healthy mix*, like Belgium looks like. I think an ideal school is a school with Moroccans, Turks and also Belgians, Polish. That is how our society simply looks like. But our school is rather… we are a concentrated school with mainly Turkish pupils. But do I think it is good? Nah, I think, it would be *healthier* to have a good mix. (*Teacher, Black Square, female, 30*)
>
> ---

Consistently with this metaphor of healthiness, Joris (*Principal, White Triangle, male, 49*) noted that the relatively high ethnic diversity of the *White Triangle* (see Figure 1) 'can only be healthy' for the school. In the same way, Ann explained that *White Triangle* always welcomed pupils from diverse background and that they had the luck that the student body of the school remained having a 'healthy balance':

Researcher: And in the past 20 years, the pupils are also changed?

Ann: For sure, the whole city is changed. The number of foreigners, not only Moroccans and Turks, but they come from everywhere. A lot of Africans, there was a time that Russians invaded, like we say, the Poles invaded. But our doors have always been open. We have always had the luck that it remained *a healthy balance*. And that's very important, that we can sustain the integration. (*Teacher, White Triangle, female, 44*)

This demonstrates that teachers and principals perceive a school as 'healthy' when its ethnic composition includes a low-to-medium ethnic minority density and a high level of ethnic diversity. The questions is *why* do the school staff perceive a high level ethnic minority density and low levels of ethnic diversity as a threat to the health of a school? We were able to distinguish two aspects. A first and major argument was that a low-to-medium level of ethnic minority density and high ethnic diversity is healthy because it is *protective*, in particular against the threats that pupils are likely to encounter with non-natives, later in their lives or at school. For instance Maria and Sonja both argued that for native pupils the presence of non-native peers was crucial so the natives would learn how to deal with them, since they would inevitably be 'confronted' with them once in high school:

Maria: Our kids should learn to deal with each other. Because now there is a problem, someone from a totally 'white' school avoids our *[non-native]* pupils here. Because they do not know how to deal with each other and that creates problems in secondary education, because they have a totally wrong idea of non-native people. So for their *[natives]* children it is also a big problem. Their school leaders tells us 'our children do not know how to deal with non-native children' (*Principal, Black Square, female, 30*)

Sonja: But those people *[natives]* are gone and currently they don't live here anymore. And that's quite a bit sad because that world is currently becoming too narrow for those children. And once they are in high school, they are going to be confronted with many nationalities and they did not actually learn how to deal with in primary school. (*Principal, Black Circle, female, 50*)

Consistent with this idea of the protective ethnic composition, Ann (*Teacher, White Triangle, female, 44*) explained that her daughter misses the realities of 'true world' because at the elitist school where her daughter is enrolled there are 'just one or two foreigners', in contrast with the higher level of ethnic minority density and diversity in the *White Triangle.* Similarly, Jaclyn explained that the high level of ethnic diversity of the *Black Triangle* (see Figure 1) was the reason why she chose to enrol her own child there as she would become 'tolerant' and 'exposed to it':

> **Jaclyn:** I think this multicultural environment is an incredible learning environment. And this is one of the reasons why my daughter is enrolled here in this school, because we do not live nearby, but I'm glad she is here in this school, because, because I think it important that she is exposed to it, and thus that she grows up and becomes tolerant. (*Teacher, Black Triangle, female, 30*)
>
> ---

Finally, some teachers perceived a higher level of ethnic diversity as protective because it reduces interethnic conflict. For instance, Piet argued that the increasing ethnic diversity in *White Triangle* had lowered past conflicts between two polarised groups, i.e. native Belgians versus Turks and Moroccans:

> **Piet**: Here, there used to be Moroccans and Turks. While now there are more Kosovars, Chechens, and pupils from Eastern European countries. This diversity makes that pupils feel less pressure on them. This is much better. The school became much more quiet with this very varying inflow. There is much less confrontation, whereas previously there were two camps. (*Teacher, White Triangle, male, 44*)
>
> ---

The second and the most common argument was that high levels of ethnic minority density and low ethnic diversity are unhealthy because this ethnic composition stimulates non-native pupils to speak their mother tongue instead of Dutch:

> **Maria:** I think that pupils learn Dutch much faster when there is a beautiful diversity in the group. It is difficult to tackle this Turkish speaking in the playground because we have more than 90 percent Turkish children. One says something in Turkish and the other responds to it in Turkish, even if we warn them eighty-three times a day. But, that would be less the case if we had a more *healthy school mix.* (*Principal, Black Square, female, 30*)

Kristof: When they *[the pupils]* have to deal with more Dutch speaking children, when there is more interaction, then it is easier to learn the language and they'll make a little more effort to learn the language. Honestly, if we could choose, then we would prefer 50/50, maybe with 50 percent non-natives and 50 percent Belgians. That might have been the best mix. (*Teacher, Black Circle, male, 32*)

Paradoxically, an ethnically diverse student body is preferred not because it would bring cultural or linguistic diversity to the school, but quite the reverse: the school staff argue that when the student composition is ethnically diverse, monolingualism will be automatically reinforced as pupils will inevitably speak only Dutch:

Researcher: Do you think that there are differences depending on the diversity within the group?
Nadia: Yes, for sure. I mean, first and foremost the language. If I have to choose a school for my own children, a school with only Moroccans or a school with 26 or more nationalities. Then I choose the second one. Why? For the reason that there is more chance that my child will learn the *[Dutch]* language easier because there are different nationalities. Because when you are in the first *[the school with no ethnic diversity]*, then children tend to speak their own language and then the chances are less that they speak Dutch (*Teacher, Black Triangle, female, 37*)

Kristof : I think that diversity is truly an asset because they *[pupils]* are going to look for the same way for communicating in the group with different nationalities. And in a Belgian school, it is very likely that this is going to be Dutch. If they going to talk with each other or play with each other, they have to use the same language and that is for sure an asset (*Teacher, Black Circle, male, 32*).

A high density of non-natives and low ethnic diversity were thus considered harmful to academic achievement because speaking another language than Dutch with peers (or with parents) was considered to harm pupils' academic achievement. Hence, when asked about the determinants of the academic achievement of their pupils, teachers

from *Black Square* and *Black Circle* argue that the most important problem they have is mother-tongue retention amongst their pupils:

> **Researcher:** What do you think the decisive factor [regarding academic achievement]?
> **Sarah:** Here, *the language is the big problem*, the language plays an important role. That is, they [the pupils] go outside and they immediately start speaking Turkish. In the hall, again Turkish, with their friends back in Turkish, when they quickly have to tell something, again Turkish. So we are like constantly, all day long: 'speak Dutch with each other, say it in Dutch' (*Teacher, Black Square, female, 29*)
> ---
> **Tom:** the only thing that we have a problem with is that when these people [the parents] are in the playground with their children or with neighbours or family and they start speaking a foreign language. But we stress: 'please speak Dutch, especially when you are at the school, because that can make or break everything, if you do not master the [Dutch] language, then your child will lag behind' (*Teacher, Black Circle, male, 54*)
> ---

> **Kelly**: Without knowing the [Dutch] language properly, you will lag behind in understanding things. You must also use the language for math or if you want to do science, or later, to have conversations with your boss, you know. Even if you are very smart and know a lot of things, without mastering one common language, it will be difficult. (*Teacher, Black Circle, female, 26*)
> ---

Even in *White Circle*, a school with few non-native pupils, teachers noted that the academic quality of schools with a high ethnic minority density is threatened by the mother-tongue retention of non-native pupils in those schools. For instance Koen, who admitted to having no experience at all with any other type of school composition, already had a clear belief that it must be 'terribly difficult' to teach in those schools because pupils there would 'barely speak Dutch':

> **Researcher**: And what factors make schools different from each other?
> **Koen:** I have never been a teacher elsewhere. But I can imagine that a school with another audience *[composition]*, let's say a school in *street [*a street with a high ethnic minority density*], first and foremost, they've got a lot of foreign children, a lot of them barely speak the [Dutch] language. I have not experienced it, but when I think that in the * [*a school*

nearby with high ethnic minority density] there are Bulgarians and Slovenians that barely speak the [Dutch] language. I think it must be terribly difficult to be a teacher there and basically to teach something (*Teacher, White Circle, male, 52*)

The actual consequences of ethnic school composition

Drawing upon quantitative evidence, we examine whether a high ethnic minority density and low ethnic diversity actually harm the academic achievement of pupils. First, in order to assess whether the school context in general matters with respect to pupils' academic achievement, the variance components from the unconditional model are calculated (Table 2, Model 0). We are particularly interested in school-level variance, computed as the between-school variance component divided by the sum of the within-school and between-school variance [τ0/(τ0+σ2)]. The variance components from Model 0 (Table 2) indicate that 26.33% (p<0.001) of the variance in pupils' match achievement occurs between schools. This justifies the need for a multilevel analysis.

In Model 1 (Table 2), we examine the impact of ethnic school composition on pupils' math achievement, controlling for several variables at the individual and school levels. The ethnic diversity of a school is not significantly related to pupils' academic achievement (standardized gamma coefficient γ*=-0.157, p=0.13). Nor does the ethnic minority density of a school have a significant effect, in terms of both the main effect (γ*=0.008, p=0.92) and the quadratic term (γ*=-0.082, p=0.42). Table 2 shows that individual level variables grade, gender, grade retention, SES that are included as control variables are significantly related to pupils' academic achievement. Regarding the ethnic background of the pupils, only Turkish pupils score less than native (West-European) pupils, while the effect size is small (γ*=-0.077, p<0.001).

To examine whether the impact of ethnic diversity and ethnic minority density on academic achievement is different for different ethnic groups, cross-level interaction with pupils' ethnic background is entered in Model 2 (Table 2), From the six cross-level interaction terms, only the interaction between ethnic diversity and the Turkish group is significant (γ*=-0.311, p<0.01). That is, Turkish pupils in schools with a higher ethnic diversity score less than Turkish pupils in ethnically homogenous schools.

In Model 3 (Table 2), we enter language use to assess whether the extent to which a pupil speaks Dutch has an impact on their academic achievement, as this was repeatedly argued by the teachers (see above). The results suggest that the frequency of speaking Dutch has no significant effect on academic achievement (γ^*=0.034, p=0.12). Additional analysis (not shown here) in which language use is inserted as outcome shows that ethnic diversity (γ^*=0.13; p=0.83) and ethnic minority density (γ^*=-0.099; p=0.05) are virtually unrelated to language use, once the control variables of Model 1 are added.

Table 2. Results of multilevel analysis for pupils' academic achievement. Gamma coefficients (γ), standardized gamma coefficients (γ*), standard errors (in parentheses) and variance components

		Model 0	Model 1	Model 2	Model 3
School Level					
Ethnic diversity	γ	---	-8.425 (5.874)	-3.514 (6.124)	-4.791 (5.993)
	γ*		-0.157	-0.066	-0.089
Ethnic minority density	γ	---	0.003 (0.027)	-0.019 (0.028)	-0.011 (0.027)
	γ*		0.008	-0.060	-0.036
Ethnic minority density	γ		-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
(quadratic term)	γ*		-0.082	-0.048	-0.062
School denomination	γ	---	1.235 (1.215)	1.356 (1.212)	1.188 (1.196)
(1 = Catholic)	γ*		0.058	0.064	0.056
Size	γ	---	0.006 (0.006)	0.005 (0.006)	0.006 (0.006)
	γ*		0.061	0.051	0.055
Pupil level					
Grade	γ	---	5.555 (0.548)	5.561 (0.554)	5.633 (0.558)
(1 = sixth)	γ*		0.239***	0.239***	0.242***
Gender	γ	---	-1.739 (0.402)	-1.739 (0.403)	-1.800 (0.393)
(1 = girl)	γ*		-0.082***	-0.082***	-0.085***
Grade retention	γ	---	-5.848 (0.413)	-5.838 (0.411)	-5.767 (0.411)
	γ*		-0.243***	-0.242***	-0.240***
SES (ref: service class)					
Blue-collar	γ	---	-5.187 (0.566)	-5.199 (0.566)	-5.111 (0.568)
	γ*		-0.238***	-0.239***	-0.235***
Technicians	γ	---	-5.112 (0.665)	-5.173 (0.668)	-5.161 (0.670)
	γ*		-0.173***	-0.175***	-0.174***
Self-employed	γ	---	-3.586 (0.737)	-3.609 (0.736)	-3.615 (0.741)
	γ*		-0.085***	-0.086***	-0.086***
Lower white collar	γ	---	-2.234 (0.597)	-2.232 (0.592)	-2.222 (0.583)
	γ*		-0.081***	-0.081***	-0.080***
Ethnicity (ref: West-European)					
Turkish	γ	---	-2.436 (0.728)	-11.092 (3.196)	-10.510 (3.204)
	γ*		-0.077***	-0.350***	-0.332***
Moroccan	γ	---	-0.278 (0.633)	-0.270 (0.626)	0.205 (0.724)
	γ*		-0.009	-0.009	0.007
Other	γ	---	-0.699 (0.533)	-0.667 (0.523)	-0.453 (0.545)
	γ*		-0.028	-0.027	-0.018
Language use	γ	---		---	0.437 (0.281)
	γ*				0.034
Ethnic diversity x Turkish	γ	---		-10.266 (3.703)	-9.896 (3.696)
	γ*			-0.311**	-0.299**
Variance components					
Between schools	τ_0	30.469***	20.181***	20.070***	16.737**
Within schools	σ^2	85.231***	65.740***	65.688***	65.396***

* p < 0.05, ** p < 0.01, *** p < 0.001

Discussion

Our aim in this study was to examine how teachers perceive the impact of the ethnic composition of the schools and how accurate these perceptions are. We have established that existing theoretical perspectives regarding people's responses to ethnic composition, such as group threat/conflict or intergroup contact theories, are not sufficient to frame our investigation. Therefore, in this study we have proposed

the social hypochondria theory (SHT) as an alternative or additional theoretical framework to investigate the perceived or actual consequences of ethnic composition.

The mixed-method empirical evidence that we have presented can be framed with SHT. First, SHT posits that social agents will offer a corporeal depiction of social bodies and will be preoccupied that the social body has a disease based, on the misinterpretation of symptoms occurring in that social body. In this case, the in-depth interviews with teachers and principals demonstrate that changes in school ethnic composition are linked to the metaphorical health of the school, using terms like 'healthy mix', 'healthy balance' or 'healthy composition'. An ethnic composition with a high level of ethnic minority density and low ethnic diversity is considered a threat to the health of schools, largely because such an ethnic composition would result in non-native pupils speaking 'their own language'. The use of the mother tongue is generally perceived as an important antecedent of poor academic achievement.

Second, SHT posits that low ethnic minority density and high ethnic diversity will be evaluated positively, since social bodies with this ethnic composition make the *assimilation* of non-natives more feasible and contribute to the *immunisation* of the social body. In line with this idea, we found that teachers and principals consider a low-to-medium level of ethnic minority density and high ethnic diversity to be a 'healthy mix': school staff argue that this ethnic composition stimulates non-natives to speak only Dutch (assimilation) and that it protects pupils from the threats they might encounter from non-natives at school or later in their lives, since they learn how to deal with non-natives (immunisation).

Finally, SHT posits that concerns about the health of the social body vis-à-vis its ethnic composition are forms of social hypochondria, as they do not correspond with the *actual* consequences of changing ethnic composition. We have found that neither ethnic minority density and ethnic diversity of schools nor pupils' language use has an impact on pupils' academic achievement. Moreover, contradicting teachers' and principals' positive accounts of high ethnic diversity, we found that a higher level of ethnic diversity might even harm the academic achievement level of Turkish minority pupils – a finding that concurs with Dronkers (2010).

The merits of the SHT are multiple. First, it is a framework that encompasses both the perceived and the actual consequences of ethnic composition. While the postulation that the ethnic composition of a social body will not have actual consequences might be considered too simplistic, it accords with the results not only of this study and but also of previous research into the impact of ethnic composition

which has repeatedly found that – once control factors are included and multilevel modelling is used –ethnic composition is of little importance (see Letki., 2008; Gesthuizen, van Der Meer & Scheepers, 2009; Hooghe et al., 2009). Second, SHT does not make a linearity assumption but provides a theoretical explanation of curvilinear effects in the impact of ethnic minority density. More specifically, it provides a rationale as to why initial levels of ethnic minority density are preferred to no ethnic minority density at all. Third, SHT provides a framework to examine how people respond to the ethnic composition of their immediate social environment and as such, it is NIMBY-proof. Fourth, the theory can be applied to the situations where social agents take unequal status roles, as with the inequalities between teachers and pupils or bosses and workers. We conclude that this theory offers a promising perspective, and we suggest that future studies in other contexts (e.g. workplace, sporting clubs, etc.) and in other countries should further develop and test it.

Algemene conclusie

De centrale doelstelling van dit onderzoek was het openen van de zwarte doos van schoolsegregatie. De focus lag dus vooral op de processen waarlangs schoolcompositie een invloed uitoefent op de cognitieve en non-cognitieve leerlingenuitkomsten. Om deze onderzoeksdoelstelling te realiseren, was het noodzakelijk om een theoretisch model te ontwikkelen en een methodologie te hanteren die ons in staat stelden om de complexe intermediaire processen te bestuderen. In de hierna volgende paragrafen vatten we deze theoretische en methodologische aanpak van het onderzoek samen. Daarna geven we een overzicht van de belangrijkste empirische bevindingen. Vervolgens bespreken we enkele beperkingen van het onderzoek. We sluiten af met een aantal aanbevlingen die gericht zijn naar onderzoekers, beleidsmakers en onderwijspractici.

Theoretische aanpak

Het theoretisch model dat we gehanteerd hebben doorheen het onderzoek is tot stand gekomen door de integratie van inzichten uit drie onderzoekstradities, namelijk het schooleffectiviteitsonderzoek (SER), het segregatieonderzoek en het onderzoek naar de leerling-leerkracht interacties. Hierbij werden de zwakheden van de ene onderzoekstraditie gecompenseerd door de sterke punten van de andere onderzoekstradities. Zo hebben we het *theoretisch deficit* van SER – wat binnen SER aanleiding gaf tot onderschatting van compositie-effecten – aangevuld met theorieën die voornamelijk worden aangehaald in de segregatiestudies. Anderzijds werd het duidelijk dat deze laatste theorieën zelden een empirische invulling kregen in de segregatiestudies. Dit *empirisch deficit* hebben we dan aangevuld met de operationele concepten die onder meer afkomstig zijn van de SER literatuur (bijvoorbeeld gevoel van futiliteit) en het onderzoek naar de leerling-leerkracht interacties (bijvoorbeeld onderwijsbaarheidsverwachtingen). In totaal zijn er acht types van processen opgenomen in het geïntegreerd theoretisch model. Deze processen zijn ingedeeld volgens drie dimensies: het subject van de processen (peergroup processen of leerling-leerkracht-processen), de aard van de processen (opvattingen of sociale relaties), en

het niveau waar de processen zich afspelen (het individueel niveau of het schoolniveau).

Om de peergroup-processen te kaderen hebben we ons laten inspireren door verschillende theorieën die worden aangehaald in de segregatiestudies. Normatieve en comparatieve referentiegroeptheorieën (zie hoofdstuk I, hoofdstuk III, hoofdstuk VI), contacttheorieën (zie hoofdstuk I, hoofdstuk II) en conflicttheorieën (zie hoofdstuk II) bleken een aanzienlijk verklarende waarde te hebben met betrekking tot cognitieve en non-cognitieve uitkomsten. Hetzelfde kan niet helemaal gezegd worden over de constricttheorie, zoals die werd voorgesteld door Putnam (2007): als etnische diversiteit al een negatieve invloed heeft op het sociaal kapitaal van de leerlingen, dan bleken deze effecten nogal gering in omvang te zijn (zie hoofdstuk I en hoofdstuk II).

We hebben bewust de vaak gebruikte notie van 'peer-effecten' vermeden om compositie-effecten te omschrijven. Een belangrijk uitgangspunt van het geïntegreerd theoretisch model is immers dat naast peergroup-processen, ook leerling-leerkracht-processen verklaringen kunnen bieden waarom schoolcompositie een invloed heeft. Tot onze verbazing hebben we vastgesteld dat de combinatie van het onderzoek naar de gevolgen van leerkrachtenverwachtingen en naar de gevolgen van schoolsegregatie bijna onbestaande was. Zoals geïllustreerd in hoofdstuk V en hoofdstuk VI is het echter duidelijk hoe vruchtbaar deze kruising is: de leerkrachtenverwachtingen blijken een belangrijke rol te spelen met betrekking tot de effecten van schoolcompositie op leerlingenprestaties. Om de gevolgen van de etnische compositie op de opvattingen van de leerkrachten te kaderen hebben we in hoofdstuk VI de notie van sociale hypochondrie (Schinkel, 2007, 2008, 2009) omgevormd tot een testbare theorie, met name de sociale hypochondrie theorie (SHT). De SHT vult een belangrijke leegte in de literatuur op aangezien ze een antwoord kan bieden op de vraag waarom een hoge etnische minderheidsconcentratie en de afwezigheid van etnische diversiteit als problematisch worden ervaren door de leerkrachten. Idealiter zal toekomstig onderzoek uitmaken in welke mate de SHT veralgemeenbaar is naar andere contexten. We denken hierbij niet alleen aan scholen, maar ook aan vrijetijdsorganisaties, bedrijven, jeugdverenigingsleven, etc… . Dergelijke studies kunnen de SHT testen door enerzijds de opvattingen van de mensen over de etnische samenstelling van hun organisaties te bestuderen en anderzijds deze opvattingen te contrasteren met de werkelijke gevolgen van de etnische compositie voor deze contexten.

Geïnspireerd door de SER literatuur, hebben we de peergroup processen en de leerling-leerkracht-processen die zich afspelen op het schoolniveau onder de noemer geplaatst van school*cultuur* en school*klimaat*. Hierbij hebben we, in navolging van Van Houtte (2005), een onderscheid gemaakt tussen beide concepten. Schoolcultuur wordt gedefinieerd als gedeelde opvattingen tussen de leerlingen of de leerkrachten op schoolniveau. De notie van schoolklimaat verwijst naar een brede waaier van institutionele processen waar in feite schoolcultuur ook toebehoort. In dit proefschrift hebben we de invulling van schoolklimaat echter beperkt tot één dimensie ervan, namelijk tot sociale relaties op schoolniveau.

Een opmerkelijke bevinding was dat de twee kenmerken die we opgenomen hebben van de leerlingencultuur, namelijk futiliteitscultuur (hoofdstuk IV) en cultuur van ervaren leerkrachtensteun (hoofdstuk III), enkel en alleen een invloed hadden op allochtone leerlingen en niet op autochtone leerlingen. Dit wijst erop dat de leerlingencultuur (de gedeelde opvattingen van de peergroup) meer invloed heeft op allochtone leerlingen dan op autochtone leerlingen. Waarom dit het geval is, hebben we bij afwezigheid van duidelijke verklaringen in het midden gelaten. Dit kan wel een belangrijke insteek zijn voor toekomstige studies.

Het geïntegreerd theoretisch model dat we ontwikkeld hebben, is een belangrijke theoretische verdienste van het proefschrift. Het laat ons immers toe om de processen tussen schoolcompositie en leerlingenuitkomsten te verkennen. Ons inziens kan het model ook door andere onderzoekers gehanteerd worden om de processen van schoolcompositie te bestuderen. Studies die onze bevindingen kunnen repliceren in andere contexten (bijvoorbeeld in andere landen of in het secundair onderwijs) kunnen de validiteit van het model verder ondersteunen. Er is binnen het model zeker nog ruimte tot verbetering en uitbreiding met nieuwe theoretische en conceptuele inzichten. Zo denken we aan processen die zich op macro niveau afspelen, zoals de nieuwe tendensen naar meer aansprakelijkheid (*accountability*) van scholen en invoering van gestandaardiseerde testen. Het aangepaste model kan worden toegepast bij internationale comparatieve studies naar compositie-effecten.

Methodologische aanpak

Het realiseren van de doelstellingen van het onderzoek is mede mogelijk gemaakt door de methodologische verdiensten van dit proefschrift. Deze methodologische verdiensten zijn in eerste instantie gerelateerd aan de unieke data die we tijdens de

eerste twee jaren van het onderzoek eigenhandig hebben verzameld. Op drie manieren onderscheidt de data zich van bestaande databanken. Ten eerste, dankzij de getrapte manier van steekproeftrekking bevat de steekproef 68 scholen die het volledige theoretische bereik van de etnische compositie dekken: enerzijds gaat de etnische concentratie in de steekproef van scholen met weinig of geen allochtone leerlingen tot scholen met weinig of geen autochtone leerlingen, en anderzijds gaat de etnische diversiteit van de scholen van scholen die helemaal etnisch homogeen zijn tot scholen die zeer etnisch heterogeen zijn. Dankzij de aanwezigheid van deze variaties wordt het modelleren van de effecten van schoolcompositie methodologisch aannemelijker (zie ook Thrupp, Lauder & Robinson, 2002). Ten tweede onderscheiden de data zich van bestaande databanken omwille van de inclusie van de metingen van de procesvariabelen, en dit zowel bij de leerlingen (N = 2845) als bij de leerkrachten (N = 706) binnen de 68 scholen. We waren er ons immers bij het opstellen van de vragenlijsten al van bewust dat zonder gegevens over intermediaire processen het niet mogelijk was om de *black-box* van schoolsegregatie te openen. Ten derde onderscheiden de data zich van bestaande databanken omdat de kwantitatieve gegevens aangevuld werden met kwalitatieve gegevens die we in vijf scholen hebben verzameld op basis van diepte-interviews bij 26 leerkrachten en directeurs. Doordat deze vijf scholen getrokken zijn uit de 68 scholen, konden we de kwalitatieve gegevens koppelen aan de kwantitatieve, wat het verrichten van mixed-methods onderzoek mogelijk maakte. De toevoeging van kwalitatieve gegevens hebben ons inzichten gegeven over – onder meer – hoe de leerkrachten de schoolcompositie zelf evalueren en we hebben de accuraatheid van deze opvattingen kunnen nagaan op basis van de kwantitatieve gegevens. Hoewel het gebruik van mixed-methods in het algemeen toegejuicht wordt, gebruiken bijna alle studies die we geciteerd hebben in dit proefwerk uitsluitend kwalitatieve of kwantitatieve methoden. Er lijkt dus meer geschreven te zijn *over* de wenselijkheid van mixed-methods, dan dat er effectief mixed-methods toegepast zijn. Een bijkomende methodologische verdienste van dit proefschrift is dus dat we mixed-methods hebben kunnen toepassen in twee van de zes hoofdstukken.

Een laatste methodologische verdienste van dit proefschrift heeft betrekking op de analysestrategie die we gebruikt hebben. Meer specifiek hebben we ervoor geopteerd om de compositievariabelen steeds eerst in de modellen op te nemen om daarna pas intermediaire procesvariabelen in de modellen toe te voegen. Op basis van deze strategie hebben we de mediërende waarde van de procesvariabelen beter

kunnen begrijpen dan bijvoorbeeld de meeste geciteerde SER studies die compositievariabelen gelijktijdig toevoegen met procesvariabelen of zelfs toevoegen nadat de procesvariabelen al in de modellen waren opgenomen. Niet alleen vertroebelt een dergelijke strategie de interpretatie van mediërende effecten, maar het opent ook de deuren voor een *overcontrol bias*, dat wil zeggen, het onderschatten van de effecten van onafhankelijke variabelen die causaal voorafgaan aan andere onafhankelijke variabelen.

Empirische bevindingen

Het voorliggend proefschrift is één van de eerste studies in Vlaanderen die de gevolgen van etnische en sociaaleconomische leerlingencompositie bestudeert. Een verdienste hierbij is dat we zowel cognitieve uitkomsten als non-cognitieve uitkomsten bestudeerd hebben, in tegenstelling tot de meeste nationale en internationale studies die zich beperkten tot cognitieve uitkomsten. We vatten onze belangrijkste bevindingen nog eens samen[1].

In het eerste hoofdstuk hebben we de effecten van etnische compositie op de nationale (Belgische) en subnationale (Vlaamse) zelfidentificaties van de leerlingen bestudeerd. In dit hoofdstuk konden we vertrekken vanuit de resultaten van eerder uitgevoerd Vlaams onderzoek waaruit bleek dat de etnische compositie van een school een belangrijke determinant was van de gevormde interetnische vriendschappen (zie Van Houtte & Stevens, 2009). Daarom hebben we niet gefocust op interetnische vriendschappen als uitkomst, maar hebben we de intermediaire rol van de interetnische vriendschappen onderzocht. We hebben vastgesteld dat een hogere concentratie van autochtonen resulteert in hogere Belgische identificatie voor allochtone leerlingen. Deze relatie kon volledig verklaard worden door de interetnische vriendschappen die allochtone leerlingen sluiten met autochtone leerlingen in deze scholen. Daarnaast vonden we dat autochtone leerlingen in scholen met een hogere concentratie van allochtonen neigen om zich nog sterker te identificeren als Belg. Dit effect werd echter geneutraliseerd door de mate van interetnische vriendschappen van autochtone leerlingen. Interetnische vriendschappen verminderen immers de Belgische identificatie van autochtone leerlingen (suppressie effect). We vonden ongeveer dezelfde resultaten voor de Vlaamse identiteit van de leerlingen, met dat verschil dat er geen schooleffecten waren voor de autochtonen. Hoewel etnische diversiteit zowel voor allochtonen als

autochtonen negatief bleek samen te hangen met Belgische identiteit, bleek de effectgrootte hier vrij beperkt. We onthouden vooral dat de sociale identiteiten van allochtone en autochtone leerlingen naar elkaar toegroeien waar ze samen schoollopen, in de eerste plaats omdat er interetnische vriendschappen worden gesloten.

In het tweede hoofdstuk hebben we de effecten van de etnische compositie op het gepest worden onderzocht. We hebben gevonden dat de mate waarin autochtone leerlingen gepest worden *niet* beïnvloed werd door de mate van etnische minderheidsconcentratie op school. Daarentegen bleken allochtone leerlingen vaker slachtoffer te zijn van pestpraktijken in scholen met een hoger aandeel autochtonen. Het klimaat van interetnische conflicten op de school was verantwoordelijk voor de associatie tussen etnische compositie en het gepest worden bij allochtone leerlingen: de mate waarin scholen gekenmerkt werden door een klimaat van interetnische conflicten had een effect op de mate van gepest worden en verklaarde waarom allochtone leerlingen vaker werden gepest in scholen met een hoger aandeel van autochtone leerlingen. In tegenstelling tot etnische concentratie, bleek de etnische diversiteit van een school niet gerelateerd te zijn aan de mate waarin de leerlingen gepest werden.

In het derde hoofdstuk hebben we de invloed van de etnische compositie op de zelfwaardering van de leerlingen bestudeerd. Uit onze initiële resultaten bleek dat de etnische compositie van de school enkel een effect had op de zelfwaardering van de autochtone leerlingen: we vonden een positieve samenhang tussen het aandeel allochtone leerlingen op school en de zelfwaardering van de autochtone leerlingen en een negatieve samenhang tussen de etnische diversiteit en de zelfwaardering van de autochtone leerlingen. Voor allochtone leerlingen werd een eventueel negatief effect van het aandeel autochtone leerlingen op school gebufferd (suppressie effect) door de steun die ze als individuele leerling ervaren van hun leerkrachten (teacher support) en door de steun die de peergroup ervaart (teacher support cultuur). In het algemeen geldt dat de ervaring leerkrachtsteun veel duidelijker samenhangt met de zelfwaardering van de leerlingen dan de etnische compositie van de school. Bovendien bleek voor allochtone leerlingen de teacher support cultuur eveneens een positief effect te hebben, terwijl dit niet het geval was voor autochtone leerlingen. Opgemerkt dient te worden dat de mate van zelfwaardering gemiddeld genomen weinig varieerde tussen de scholen: de nulmodellen wezen uit dat de variantie op schoolniveau gemiddeld 2.5 procent was (vergelijk: ongeveer 10 procent voor de nationale

identificatie, en ongeveer 25 procent voor onderwijsprestaties). We moeten daarom extra voorzichtig zijn bij het formuleren van consequenties van de gevonden resultaten met betrekking tot de effecten van schoolcompositie op de zelfwaardering van de leerlingen.

Wat de effecten van schoolcompositie op de schoolprestaties betreft, zijn de empirische bevindingen verspreid over de laatste drie hoofdstukken. We zijn in hoofdstuk vier begonnen met de vaststelling dat zowel voor allochtone als autochtone leerlingen niet de etnische minderheidsconcentratie ertoe deed, maar wel de sociaaleconomische compositie: een grotere concentratie van arbeidersklassekinderen bleek samen te hangen met lagere onderwijsprestaties. Deze bevinding lag in het verlengde van de meeste voorgaande studies op dit vlak (zie meta-analyses door van Ewijk & Sleegers, 2010a, 2010b). De verdienste van dit onderzoek is echter dat we een empirische verklaring hebben gegeven voor de relatie tussen schoolcompositie en onderwijsprestaties. Het werd immers duidelijk dat wanneer gecontroleerd werd voor gevoelens van futiliteit en futiliteitscultuur, de relatie tussen sociaaleconomische compositie en de onderwijsprestaties verdween. Scholen met een hoger aandeel arbeidersklasseleerlingen genereerden immers meer gevoelens van futiliteit en een hogere futiliteitscultuur. De gevoelens van futiliteit hingen op hun beurt samen met lagere onderwijsprestaties. Voor allochtone leerlingen bleek de futiliteitscultuur een negatief effect te hebben, maar bij autochtone leerlingen was dit niet het geval.

In het vijfde hoofdstuk hebben we dan proberen te achterhalen waarom scholen met een hogere concentratie van arbeidersklassekinderen gevoelens van futiliteit en futiliteitscultuur genereerden. Hier werd vooral de rol van de leerkrachtenverwachtingen onderstreept. Een hogere concentratie van allochtone leerlingen en arbeidersklasseleerlingen bleek samen te hangen met lagere verwachting van onderwijsbaarheid bij de leerkrachten. Op basis van diepte-interviews met de leerkrachten hebben we vastgesteld dat deze lagere verwachtingen vooral tot stand kwamen doordat de leerkrachten het taalgebruik van allochtone leerlingen uit lage sociaaleconomische omgevingen als problematisch ervaarden. Deze lagere verwachtingen werden voortdurend gecommuniceerd naar de leerlingen zelf en konden zo verklaren waarom er een gevoel van futiliteit en bijgevolg lagere onderwijsprestaties tot stand kwamen in deze scholen.

In het zesde hoofdstuk hebben we de opvattingen van de leerkrachten over de gevolgen van de etnische compositie en de accuraatheid van deze opvattingen met betrekking tot de werkelijke gevolgen van etnische compositie op de

onderwijsprestaties getheoretiseerd op basis van de sociale hypochondrie theorie (SHT). De SHT werd ontwikkeld op basis van de notie van sociale hypochondrie die we ontleend hebben van Willem Schinkel (Schinkel, 2007, 2008, 2009). De kwalitatieve gegevens wezen uit dat de leerkrachten een unanieme voorkeur hadden voor een lage etnische minderheidsconcentratie en hoge etnische diversiteit. Dergelijke etnische composities werden beschouwd als 'gezond'. Enerzijds werd de volledige afwezigheid van allochtone leerlingen op school als 'ongezond' beschouwd omdat in dergelijke scholen autochtone leerlingen niet zouden leren omgaan met allochtone leerlingen, terwijl ze er later mee geconfronteerd zouden worden. Dit kan vanuit het SHT perspectief begrepen worden als voorkeur voor een etnische compositie die *immunisatie* mogelijk maakt. Anderzijds werd een hoge concentratie van allochtone leerlingen en lage etnische diversiteit als een bedreiging voor de gezondheid van de school gezien omdat in dergelijke situaties allochtone leerlingen minder Nederlands zouden spreken en dat zou leiden tot slechtere onderwijsprestaties. Dit kan vanuit het SHT perspectief begrepen worden als voorkeur voor etnische compositie die *assimilatie* mogelijk maakt. Echter, de kwantitatieve analyse maakte duidelijk dat deze opvattingen sociaal hypochondrisch zijn: de etnische minderheid concentratie noch de mate waarin leerlingen Nederlands spreken, hadden een invloed op hun onderwijsprestaties. In tegenspraak met wat de leerkrachten ervaarden, bleek de mate van de etnische diversiteit zelfs negatief samen te hangen met de onderwijsprestaties van de leerlingen, meer specifiek met de onderwijsprestaties van etnisch Turkse leerlingen.

Limitaties

Naast zijn verdiensten, heeft dit onderzoek ook een aantal beperkingen. Een eerste beperking is gerelateerd aan het cross-sectioneel design van onze data. Dit maakt dat we voorzichtig dienen te zijn bij het causaal interpreteren van de samenhang tussen de compositiekenmerken en de leerlingenuitkomsten. Er kunnen immers selectie-effecten optreden aangezien de leerlingen in de data niet ad random verdeeld zijn over de scholen (zie ook Nash, 2003). Dit betekent echter niet dat we op basis van cross-sectionele data geen uitspraken kunnen doen over de gevolgen van compositiekenmerken. We hebben immers op basis van een set van controlevariabelen rekening gehouden met verschillende *intake* kenmerken om eventuele selectie-effecten te reduceren. Deze werkwijze is gelijklopend met het internationaal

onderzoek naar de gevolgen van schoolcompositie (zie meta-analyses door van Ewijk & Sleegers, 2010a, 2010b). Een tweede beperking van het onderzoek is de onmogelijkheid om SES-compositie en etnische minderheidsconcentratie samen in de modellen op te nemen wegens problemen van multicollineariteit. De bivariate correlatie tussen beide variabelen was immers 0.88. We hebben dit probleem aangepakt door aparte modellen te schatten voor SES compositie en etnische concentratie (zie ook Dumay & Dupriez, 2008). Met betrekking tot onderwijsprestaties van de leerlingen bleek hieruit dat de SES compositie de doorslaggevende factor is en niet de etnische concentratie. Een derde limitatie van het onderzoek is dat onze meting van etnische minderheidsconcentratie niet opgedeeld is naar verschillende categorieën van etnische minderheden: alle niet-westerse allochtonen werden bij elkaar genomen. Deze keuze is vooral ingegeven door het feit dat de groepsgrootte van de verschillende etnische groepen niet omvangrijk genoeg was om verschillende compositievariabelen aan te maken. Hoewel deze keuze in het verlengde ligt van vroegere Vlaamse en internationale studies (zie bijvoorbeeld Van Houtte & Stevens, 2009, 2010b; Ryabov & Van Hook, 2007; Bankston & Caldas, 1996, 1998), toont recent onderzoek aan dat de concentratie van verschillende etnische minderhedengroepen, verschillende effecten kan genereren (zie bijvoorbeeld Dronkers & Levels, 2007; Dronkers, 2010). Een mogelijke insteek voor het toekomstig Vlaams onderzoek is daarom de effecten van etnische minderheidsconcentratie uitsplitsen naar verschillende etnische groepen.

Aanbevelingen

De theoretische, methodologische en empirische bevindingen hebben implicaties voor verschillende actoren in het onderwijsveld: onderzoekers, beleidsmakers en practici. Ten eerste nodigen we onderwijssociologen en onderwijskundigen uit om de theoretische en methodologische inzichten die we hebben verwezenlijkt te integreren in hun toekomstige studies naar de gevolgen van schoolcompositie. We willen hier benadrukken dat het wetenschapsveld minder nood heeft aan studies die louter de samenhang tussen compositiekenmerken en leerlingenuitkomsten bestuderen, maar dat vijftig jaar na het Coleman rapport (1966) ook aandacht geschonken mag worden aan de processen waarlangs de compositiekenmerken een invloed uitoefenen. Bovendien is het bestuderen van de processen niet alleen belangrijk vanuit een fundamenteel wetenschappelijk perspectief, maar het biedt ook opportuniteiten voor

het beleidsgericht onderzoek. Wanneer men immers begrijpt *waarom* bepaalde composities bepaalde uitkomsten genereren, dan kan het beleid niet alleen ingrijpen in de schoolcomposities, maar ook inspelen op de processen die zich afspelen in deze scholen.

Hoewel dit onderzoek nog steeds een fundamenteel wetenschappelijk onderzoek is, zijn onze resultaten bijzonder relevant voor beleidsmakers, niet in het minst omdat we gefocust hebben op de processen. We moeten echter diegene die zoeken naar een eenduidige wetenschappelijke evidentie *voor of tegen* 'concentratiescholen' teleurstellen. Onze resultaten wijzen immers uit dat de gevolgen van etnische concentratie of etnische diversiteit niet eenduidig positief of negatief zijn. We zijn dan ook de overtuiging toegedaan dat een onderwijsbeleid niet gediend is met een ééndimensionale evaluatie. Dit impliceert bijvoorbeeld dat de etnische samenstelling van een school op cognitief vlak andere uitkomsten kan impliceren dan wanneer het gaat over het schoolwelbevinden van de leerlingen. Desalniettemin kunnen we een aantal voorzichtige conclusies trekken.

Ten eerste zijn er argumenten voor verandering in de etnische compositie van volledig 'zwarte' *en* volledig 'witte' scholen naar meer gemengde scholen omdat dit allochtone *en* autochtone leerlingen dichter bij elkaar zal brengen. Dit gebeurt vooral omdat de leerlingen in meer gemengde scholen meer interetnische vriendschappen ontwikkelen. Schoolcontext is immers een belangrijke sociale context waar vriendschappen gevormd worden. Echter, voor het schoolwelbevinden en de zelfwaardering van de allochtone leerlingen is het belangrijk om ervoor te zorgen dat desegregatie niet samengaat met een problematisch interetnisch klimaat of problematische interpersoonlijke leerling-leerkracht-relaties. Deze processen bepalen immers in grote mate mee hoe de schoolcompositie een impact zal hebben op het zelfbeeld en het schoolwelbevinden van de leerlingen. Met andere woorden, desegregatiebeleid dient steeds gekoppeld te worden aan een onderwijsbeleid dat gericht is op het creëren van gunstige leerling-leerkracht-relaties en een gunstig interetnisch klimaat op school opdat het schoolwelbevinden en het zelfbeeld van de leerlingen niet geschaad zou worden.

Ten tweede, de resultaten van het onderzoek wijzen uit dat het ongegrond is om te denken dat etnische desegregatie tot betere onderwijsprestaties zal leiden voor allochtone of voor autochtone leerlingen: over het algemeen zien we dat de etnische minderheidsconcentratie *niet* gerelateerd is aan de onderwijsprestaties van de leerlingen. Een uitzondering hierop zijn de eventuele negatieve gevolgen van etnische

diversiteit voor leerlingen van Turkse afkomst. Hoewel we op basis van deze laatste bevinding kunnen stellen dat het discours over de positieve gevolgen van etnische diversiteit van de schoolcompositie sterk genuanceerd dient te worden, lijkt het ons veel te voorbarig om te pleiten voor etnisch homogene (Turkse) scholen. We hebben immers nog niet onderzocht *waarom* etnische diversiteit een negatieve impact heeft op de onderwijsprestaties van de etnisch Turkse leerlingen – en dit kan alweer een interessante insteek zijn voor toekomstig onderzoek. Slechts wanneer blijkt dat er een quasi mechanische relatie bestaat tussen etnische diversiteit en slechtere onderwijsprestaties, is een voorkeur voor etnisch homogene scholen legitiem.

Ten derde, een desegregatiebeleid dat focust op de sociaaleconomische samenstelling van de scholen maakt meer kans om te slagen, aangezien een hogere concentratie van arbeidersklasseleerlingen wel een negatief effect uitoefent op de onderwijsprestaties van allochtone en autochtone leerlingen. Daarom is het aangewezen om een initiatief als 'School In Zicht' – dat sociaaleconomische desegregatie nastreeft door middenklasse ouders te overtuigen om zich gezamenlijk in te schrijven in concentratiescholen – te steunen vanuit het beleid. Maar ook hier moeten we nuanceren, want de effecten van sociaaleconomische compositie zijn niet mechanisch gerelateerd aan onderwijsprestaties. We hebben immers gewezen op de intermediaire rol van futiliteitsgevoelens, futiliteitscultuur en de cultuur van leerkrachtenverwachtingen. Dit wil zeggen dat indien we de scholen met een hogere concentratie van arbeidersklassekinderen kunnen hervormen tot scholen waar een cultuur heerst van hoge onderwijsbaarheidsverwachtingen bij de leerkrachten en waar een leerlingencultuur heerst die gericht is op onderwijssucces, ook daar betere onderwijsprestaties tot stand zullen komen.

Met deze vaststelling komen we tot de laatste doelgroep waartoe we onze aanbevelingen willen richten: de practici in het onderwijsveld zelf. Tijdens de talrijke conversaties die we gedurende de kwantitatieve en kwalitatieve dataverzameling gehad hebben met de leerkrachten en directies, hebben we gemerkt dat de *kennis* over de mechanismen die sociale ongelijkheid tot stand brengen quasi volledig ontbreekt. Anders gesteld, er is binnen het onderwijsveld weinig tot geen bewustzijn over het sociaal karakter van de onderwijsprocessen, bijvoorbeeld over de nefaste gevolgen van lage verwachtingen ten aanzien van kinderen uit arbeidersmilieu en hun taalgebruik. Hiermee willen we echter niet gezegd hebben dat het de schuld van de leerkrachten is dat er sociale ongelijkheid bestaat – auteurs zoals Althusser (1970), Bernstein (1970), Bourdieu (1977), Bowles en Gintis (1976) hadden immers gelijk toen

ze de stelling innamen dat het onderwijs in eerste instantie de sociale ongelijkheid reproduceert doordat er in de brede samenleving ongelijkheid bestaat. Toch zijn we ervan overtuigd dat de onderwijspractici deze vicieuze cirkel (deels) kunnen doorbreken indien ze meer *reflexief* zouden zijn in hun handelen. Dit houdt in dat de onderwijzers zich meer bewust worden van de mechanismen die onderbewust sociale ongelijkheid reproduceren. Op basis van dit bewustzijn kunnen ze immers een tegenwicht bieden aan deze processen, terwijl ze anders deze mechanismen louter ondergaan. We roepen dus op voor meer *reflexief onderwijs* omdat reflexiviteit de sleutel is tot sociale verandering (zie ook Bourdieu & Wacquant, 1992). Met betrekking tot de effecten van schoolcompositie kan hetzelfde gesteld worden. De interactie tussen verwachtingen van leerkrachten en hun handelen zou immers anders zijn indien ze zich bewust zouden zijn van het feit dat een 'concentratieschool' niet noodzakelijk minder bekwame leerlingen voortbrengt, dat het spreken van de moedertaal in deze scholen geen grote bedreiging vormt voor de onderwijsprestaties, en dat de afwezigheid van etnische diversiteit in homogene 'concentratiescholen' niet betekent dat er geen 'gezonde mix' kan zijn. De instellingen die onderwijzers opleiden en ondersteunen kunnen een belangrijke rol spelen bij het tot stand brengen van reflexief onderwijs door dit thema hoger op hun agenda te plaatsen. We denken hierbij aan lerarenopleidingen, maar ook aan pedagogische begeleidingsdiensten en instellingen die bijscholing geven aan onderwijspractici. Ook wetenschappers kunnen hun steentje bijdragen indien ze de resultaten van hun studies vertalen naar gepopulariseerde[2] en publieke[3] media. Kortom, het begrijpen van de (onderwijs)wereld is de eerste noodzakelijke stap om deze te kunnen veranderen in de juiste richting. Indien we met dit proefschrift een *minimale* bijdrage hebben kunnen leveren tot dit doel, denken we dat we *maximaal* geslaagd zijn in ons opzet.

Orhan Ağırdağ,
Juli 2011, Gent

Eindnoten

(1) De empirische bevindingen van dit proefschrift (de zes hoofdstukken) hebben hun weg gevonden naar internationale tijdschriften die opgenomen zijn in *SSCI* van *Web Of Science,* waarvan er drie reeds gepubliceerd zijn (Agirdag, Van Houtte & Van Avermaet, 2011a, 2011b; Agirdag, Demanet, Van Houtte & Van Avermaet, 2011) en drie zich momenteel bevinden in het peer-review proces. Vijf hoofdstukken van dit proefschrift zijn tevens voorgesteld tijdens internationale conferenties (Agirdag & Van Houtte, 2010b, 2010c, 2011a, 2011c; Demanet, Agirdag & Van Houtte, 2010). Daarnaast hebben een aantal wetenschappelijke inzichten die tijdens dit onderzoek tot stand zijn gekomen, maar die geen deel uitmaken van het onderzoek, aanleiding gegeven tot een aantal publicaties waaronder vier artikels die gepubliceerd of aanvaard zijn in internationale tijdschriften die opgenomen zijn in *SSCI* van *Web Of Science* (zie Agirdag, 2009a, 2010a; Agirdag & Van Houtte, 2011b; Agirdag, Huyst & Van Houtte, 2011), drie boekhoofdstukken verschenen in internationale boeken (zie Agirdag, 2009b, 2010b, Demanet, Agirdag, Van Houtte, 2011) en drie presentaties tijdens internationale conferenties (Agirdag, 2008a, 2008b; Agirdag & Van Houtte, 2009; Agirdag & Loobuyck, 2011).

(2) Een aantal inzichten van dit onderzoek zijn deels ontsloten in verschillende gepopulariseerde tijdschriften en conferenties (Agirdag, Loobuyck, Van Houtte, 2011a, 2011b; Agirdag & Van Houtte, 2010a).

(3) De onderzoeksresultaten hebben reeds een uitgebreide weerklank gehad in de nationale media (Humo, 01/02/2011; De Standaard, 21/02/2011; Studio Brussel, 21/02/2011; De Morgen 22/02/201; Het Belang van Limburg, 21/02/2011).

Referenties

Abedi, J., Hofstetter, C. H., & Lord, C. (2004). Assessment accommodations for English language learners: Implications for policy-based empirical research. *Review of Educational Research, 74*(1), 1-28.

Agirdag, O. (2008a). *Culture without capital? A critique of deficit thinking in educational research and practice*. Paper presented at the European Conference on Educational Research. From Teaching to Learning?

Agirdag, O. (2008b). *Cultuur zonder kapitaal? Een sociologische kritiek op het deficitdenken in het onderwijsonderzoek en de onderwijspraktijk*. Paper presented at the Dag van de Sociologie.

Agirdag, O. (2009a). All Languages Welcomed Here. *Educational Leadership, 66*(7), 20-25.

Agirdag, O. (2009b). All Languages Welcomed Here. How to create a linguistically plural environment. In M. Scherer (Ed.), *Supporting the Whole Child: Reflections on Best Practices in Learning, Teaching, and Leadership* (pp. 267-276): ASCD.

Agirdag, O. (2010a). Exploring bilingualism in a monolingual school system: insights from Turkish and native students from Belgian schools. *British Journal of Sociology of Education, 31*(3), 307-321.

Agirdag, O. (2010b). What Are the Ongoing Debates over Bilingual Education? All Languages Welcomed Here. In W. J. Fraser (Ed.), *Teach* (pp. 132-135). New York, NY: McGraw-Hill.

Agirdag, O., Demanet, J., Van Houtte, M., & Van Avermaet, P. (2011). Ethnic school composition and peer victimization: a focus on the interethnic school climate. *International Journal of Intercultural Relations*. *35*(4), 465-473

Agirdag, O., Huyst, P., & Van Houtte, M. (2011). Determinants of the formation of a European identity among children: individual- and school-level influences. *Journal of Common Market Studies (aanvaard)*.

Agirdag, O., & Loobuyck, P. (2011). *A Study of Belgian Teacher Attitudes towards Muslim Students*. Paper presented at the Annual Meeting of American Educational Research Association

Agirdag, O., Loobuyck, P., & Van Houtte, M. (2011a). Samen staan we sterk : (de)segregatie in het onderwijs. *Samenleving en politiek, 18*(184), 46-55.

Agirdag, O., Loobuyck, P., & Van Houtte, M. (2011b). Samen staan we sterk : (de)segregatie in het onderwijs. *De democratische school*. (in press)

Agirdag, O., & Van Houtte, M. (2009). *Intercultural education for all? An investigation of the impact of school composition on intercultural education*. Paper presented at the 9th Conference European Sociological Association.

Agirdag, O., & Van Houtte, M. (2010a). *De impact van sociaal-economische en etnische afkomst van de leerlingenen de impact van samenstelling van het leerlingenpubliek van scholen op de wiskundeprestaties.* Paper presented at the Conferentie na de peilingen : wiskunde : basisonderwijs : secundair onderwijs-eerste graad-B-stroom : secundair onderwijs-eerste graad-A-stroom : het verschil in wiskunde, Proceedings.

Agirdag, O., & Van Houtte, M. (2010b). *Ethnic school context and the (sub-)national identifications of pupils*. Paper presented at the XVII ISA World Congress of Sociology.

Agirdag, O., & Van Houtte, M. (2010c). *Waarom heeft sociaal-economische en etnische segregatie een impact op studieprestaties van leerlingen in het lager onderwijs in Vlaanderen?* Paper presented at the Onderwijs Research Dagen (ORD).

Agirdag, O., & Van Houtte, M. (2011a). *Pygmalion goes to organizational-level: a multi-method study on the mediating role of self-fulfilling prophecies in explaining the impact of school segregation*. Paper presented at the 10th Conference of the European Sociological Association.

Agirdag, O., & Van Houtte, M. (2011b). A tale of two cities : bridging families and schools. *Educational Leadership, 68*(8), 42-46.

Agirdag, O., & Van Houtte, M. (2011c). *'We willen een gezonde school mix': een mixed-method studie naar sociale hypochondrie in het onderwijssysteem*. Paper presented at the Dag Van De Sociologie 2011.

Agirdag, O., Van Houtte, M., & Van Avermaet, P. (2011a). Ethnic school context and the national and sub-national identifications of pupils. *Ethnic and Racial Studies, 34*(2), 357-378.

Agirdag, O., Van Houtte, M., & Van Avermaet, P. (2011b). Why Does the Ethnic and Socio-economic Composition of Schools Influence Math Achievement? The Role of Sense of Futility and Futility Culture. *European Sociological Review*.

Albertijn, M., & Smeyers, M. (2009). *School in zicht.Tien lessen uit drie jaar werken aan desegregatie in het onderwijs*. Antwerpen: Tempera.

Alexander, K. L., Entwisle, D. R., & Dauber, S. L. (1994). *On the success of failure : a reassessment of the effects of retention in the primary grades*. Cambridge: Cambridge University Press.

Alexander, K. L., Entwisle, D. R., & Thompson, M. S. (1987). School Performance, Status Relations, and the Structure of Sentiment - Bringing the Teacher Back In. *American Sociological Review, 52*(5), 665-682.

Allport, G. W. (1954). *The nature of prejudice*. Cambridge, Ma: Addison-Wesley.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (4th ed.)*. Washington, DC: Arlington.

Ando, M., Asakura, T., & Simons-Morton, B. (2005). Psychosocial influences on physical, verbal and indirect bullying among Japanese early adolescents. *Journal of Early Adolescence, 25*(3), 268-297.

Angus, L. (1993). The sociology of school effectiveness. *British Journal of Sociology of Education, 14*(3), 333-345.

Armor, D. J. (1995). *Forced justice : school desegregation and the law*. New York: Oxford University Press.

Arora, C. M. J. (1996). Defining bullying - Towards a clearer general understanding and more effective intervention strategies. *School Psychology International, 17*(4), 317-329.

Bankston, C. L., & Caldas, S. J. (1996). Majority African American schools and social injustice: The influence of de facto segregation on academic achievement. *Social Forces, 75*(2), 535-555.

Bankston, C. L., & Caldas, S. J. (1998). Family structure, schoolmates, and racial inequalities in school achievement. *Journal of Marriage and the Family, 60*(3), 715-723.

Bankston, C. L. I., & Zhou, M. (2002). Being Well vs. Doing Well: Self-Esteem and School Performance among Immigrant and Nonimmigrant Racial and Ethnic Groups. *International Migration Review, 36*(2), 389-415.

Barrett, M. (2002). *Children's views of Britain and Britishness in 2001*. Paper presented at the Annual Conference of the Developmental Psychology Section of the British Psychological Society.

Barrett, M., Wilson, H., & Lyons, E. (2003). The development of national in-group bias: English children's attributions of characteristics to English, American and German people. *British Journal of Developmental Psychology, 21*, 193-220.

Becker, H. S. (1952). Social-Class Variations in the Teacher-Pupil Relationship. *Journal of Educational Sociology, 25*(8), 451-465.

Bernstein, B. (1970). Education cannot compensate for society. *New society, 387*(26), 344-347.

Biedinger, N., Becker, B., & Rohling, I. (2008). Early ethnic educational inequality: The influence of duration of preschool attendance and social composition. *European Sociological Review, 24*(2), 243-256.

Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology, 35*(1), 61-79.

Blalock, H. M. (1967). *Toward a theory of minority-group relations*. New York: Wiley.

Blommaert, J., & Van Avermaet, P. (2008). *Taal, onderwijs en de samenleving. De kloof tussen beleid en realiteit.* Berchem: Epo.

Blumer, H. (1958). Race Prejudice as a Sense of Group Position. *The Pacific Sociological Review, 1*(1), 3-7.

Boado, H. C. (2007). Immigrant concentration in schools: Peer pressures in place? *European Sociological Review, 23*(3), 341-356.

Bobo, L. (1983). Whites Opposition to Busing - Symbolic Racism or Realistic Group Conflict. *Journal of Personality and Social Psychology, 45*(6), 1196-1210.

Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge: Cambridge University Press.

Bourdieu, P., & Passeron, J. C. (1970). *La reproduction; éléments pour une théorie du système d'enseignement*. Paris: Éditions de Minuit.

Bourdieu, P., & Passeron, J. C. (1990). *Reproduction in education, society, and culture. 2nd edition.* (1990 ed.). Beverly Hills, CA: Sage.

Bourdieu, P., & Wacquant, L. J. D. (1992). *An invitation to reflexive sociology*. Chicago: University of Chicago Press.

Bowers, L., Smith, P. K., & Binney, V. (1992). Cohesion and Power in the Families of Children Involved in Bully Victim Problems at School. *Journal of Family Therapy, 14*(4), 371-387.

Bowlby, J. (1982). Attachment and Loss - Retrospect and Prospect. *American Journal of Orthopsychiatry, 52*(4), 664-678.

Bowles, S., & Gintis, H. (1976). *Schooling in capitalist America : educational reform and the contradictions of economic life*. New York: Basic Books.

Braddock, J. H., & Eitle, T. M. (2004). The effects of school desegregation. In J. A. Banks & C. A. M. Banks (Eds.), *Handbook of research on multicultural education. Second Edition* (pp. 828–846). San Francisco, CA: Jossey-Bass.

Brannstrom, L. (2008). Making their mark: The effects of neighbourhood and upper secondary school on educational achievement. *European Sociological Review, 24*(4), 463-478.

Brookover, W. B., & Schneider, J. M. (1975). Academic Environments and Elementary-School Achievement. *Journal of Research and Development in Education, 9*(1), 82-91.

Brookover, W. B., Schweitzer, J. H., Schneider, J. M., Beady, C. H., Flood, P. K., & Wisenbaker, J. M. (1978). Elementary-School Social Climate and School-Achievement. *American Educational Research Journal, 15*(2), 301-318.

Brookover, W. B. B., Charles, Flood, P., Schweitzer, J., & Wisenbaker, J. (1979). *School social systems and student achievement : schools can make a difference*. New York: Praeger.

Brophy, J. E. (1983). Research on the Self-Fulfilling Prophecy and Teacher Expectations. *Journal of Educational Psychology, 75*(5), 631-661.

Brown v. Board of Education, U.S. 483 (United States Supreme Court 1954).

Brutsaert, H. (1990). Changing Sources of Self-Esteem among Girls and Boys in Secondary-Schools. *Urban Education, 24*(4), 432-439.

Brutsaert, H. (2001). *Co-educatie: Studiekansen en Kwaliteit van het Schoolleven*. Leuven-Apeldoorn Belgium: Garant.

Buhs, E. S., & Ladd, G. W. (2001). Peer Rejection as an Antecedent of Young Children's School Adjustment: An Examination of Mediating Processes. *Developmental Psychology, 37*(4), 550-560.

Buhs, E. S., Ladd, G. W., & Herald, S. L. (2006). Peer Exclusion and Victimization: Processes That Mediate the Relation Between Peer Group Rejection and Children's Classroom Engagement and Achievement? *Journal of Educational Psychology, 98*(1), 1-13.

Burgess, S., Wilson, D., & Lupton, R. (2005). Parallel lives? Ethnic segregation in schools and neighbourhoods. *Urban Studies, 42*(7), 1027-1056.

Buyse, E., Verschueren, K., Verachtert, P., & Van Damme, J. (2009). Predicting School Adjustment in Early Elementary School: Impact of Teacher-Child Relationship Quality and Relational Classroom Climate. *Elementary School Journal, 110*(2), 119-141.

Caldas, S. J., & Bankston, C. (1998). The inequality of separation: Racial composition of schools and academic achievement. *Educational Administration Quarterly, 34*(4), 533-557.

Caldas, S. J., Bankston, C. L., & Cain, J. S. (2007). A case study of teachers' perceptions of school desegregation and the redistribution of social and academic capital. *Education and Urban Society, 39*(2), 194-222.

Cantle, T. (2001). *Community Cohesion: A Report of the Independent Review Team*.

Caracelli, V. J., & Greene, J. C. (1997). Crafting mixed-method evaluation designs. *New Directions for Evaluation, 1997*(74), 19-32.

Carrington, B., & Short, G. (1995). What Makes a Person British - Childrens Conceptions of Their National Culture and Identity. *Educational Studies, 21*(2), 217-238.

Cervini, R. A. (2009). Class, school, municipal, and state effects on mathematics achievement in Argentina: a multilevel analysis. *School Effectiveness and School Improvement, 20*(3), 319-340.

Chan, W. Y., & Birman, D. (2009). Cross-and same-race friendships of Vietnamese immigrant adolescents: A focus on acculturation and school diversity. *International Journal of Intercultural Relations, 33*(4), 313-324.

Clark, K. B. (1955). *Prejudice and your child*. Boston,: Beacon Press.

Coe, R., & Fitz-Gibbon, C. T. (1998). School effectiveness research: criticisms and recommendations. *Oxford Review of Education, 24*(4), 421-438.

Coenders, M., Lubbers, M., Scheepers, P., & Verkuyten, M. (2008). More than two decades of changing ethnic attitudes in the Netherlands. *Journal of Social Issues, 64*(2), 269-285.

Cohen, A. K. (1955). *Delinquent boys: the culture of the gang*. Glencoe, Ill.,: Free Press.

Coleman, J. S. (1988). Social Capital in the Creation of Human-Capital. *American Journal of Sociology, 94*, 95-120.

Coleman, J. S., Campbell, E. Q., Hobson, C. J., James, M., Mood, A. M., Weinfeld, F. D., et al. (1966). *Equality of educational opportunity*. Washington, DC: US Dept. of Health Education and Welfare Office of Education.

Cooper, C. E., & Crosnoe, R. (2007). The engagement in schooling of economically disadvantaged parents and children. *Youth & Society, 38*(3), 372-391.

Cooper, H. M. (1979). Pygmalion Grows up - Model for Teacher Expectation Communication and Performance Influence. *Review of Educational Research, 49*(3), 389-410.

Cooper, H. M. (1985). Models of teacher expectation communication. In J. B. Dusek (Ed.), *Teacher expectancies* (pp. 135-158). Hildale, NJ: Erlbaum.

Crain, R. L., & Mahard, R. E. (1982). How Desegregation Orders May Improve Minority Academic-Achievement. *Harvard Civil Rights-Civil Liberties Law Review, 16*(3), 693-733.

Creemers, B., Scheerens, J., & Reynolds, D. (2000). Theory development in school effectiveness research. In C. Teddlie & D. Reynolds (Eds.), *The international handbook of school effectiveness research* (pp. 283–298). Londen: Falmer Press.

Crosnoe, R. (2009). Low-Income Students and the Socioeconomic Composition of Public High Schools. *American Sociological Review, 74*(5), 709-730.

Crosnoe, R., Johnson, M. K., & Elder, G. H. (2004). Intergenerational bonding in school: The behavioral and contextual correlates of student-teacher relationships. *Sociology of Education, 77*(1), 60-81.

Dansby, M. R., & Landis, D. (1996). The use of equal opportunity climate in intercultural training. In D. Landis & R. S. Bhagat (Eds.), *Handbook of Intercultural Training (2nd Edition)*. Thousand Oaks, CA: Sage.

Davidov, E., Meuleman, B., Billiet, J., & Schmidt, P. (2008). Values and Support for Immigration: A Cross-Country Comparison. *European Sociological Review, 24*(5), 583-599.

Davis, J. A. (1966). Campus as a Frog Pond - Application of Theory of Relative Deprivation to Career Decisions of College Men. *American Journal of Sociology, 72*(1), 17-31.

Dawkins, M. P. (1983). Black-Students Occupational Expectations - a National Study of the Impact of School-Desegregation. *Urban Education, 18*(1), 98-113.

Dawkins, M. P., & Braddock, J. H. (1994). The Continuing Significance of Desegregation - School Racial Composition and African-American Inclusion in American Society. *Journal of Negro Education, 63*(3), 394-405.

De Maeyer, S., & Rymenans, R. (2004). *Onderzoek naar kenmerken van effectieve scholen: kritische factoren in een onderzoek naar schooleffectiviteit in het technisch en beroepssecundair onderwijs in Vlaanderen*. Gent: Academia Press.

De Rycke, L., & Swyngedouw, M. (1997). *The subjective experience of discrimination of Moroccan and Turkish immigrants in Brussels*. Paper presented at the Annual Conference of the ESA.

Demanet, J. (2008). Populair of verstoten? Een netwerkanalytisch onderzoek naar de sociale kenmerken van pesters in het Vlaamse secundaire onderwijs. *Tijdschrift voor sociologie, 29*(4), 397-423.

Demanet, J., Agirdag, O., & Van Houtte, M. (2010). *Perceived Peer Victimization and Ethnic School Context: the Impact of Interethnic Climate Handed*. Paper presented at the ECER 2010 Helsinki - European Conference on Educational Research

Demanet, J., Agirdag, O., & Van Houtte, M. (2011). Etnische Schoolsamenstelling en Sociaal Kapitaal. Een Onderzoek naar de Effecten van Etnische Concentratie en Heterogeniteit op Verbondenheid met Leeftijdsgenoten, Leerkrachten en de School bij Autochtone en Allochtone Leerlingen. In J. Dronkers (Ed.), *Structuren van Onderwijs en Samenleving en hun Relatie met Onderwijsuitkomsten*. Amsterdam: University Press.

Desmedt, E., & Nicaise, I. (2006). Etnische segregatie in het onderwijs: horen, zien en zwijgen? In S. Sierens, M. Van Houtte, P. Loobuyck, K. Delrue & K. Pelleriaux (Eds.), *Onderwijs onderweg in de immigratiesamenleving* Gent: Academia Prss.

Dixon, J. C. (2006). The ties that bind and those that don't: Toward reconciling group threat and contact theories of prejudice. *Social Forces, 84*(4), 2179-2204.

Driessen, G. (2002). School Composition and Achievement in Primary Education: A Large-Scale Multilevel Approach. *Studies in Educational Evaluation, 28*(4), 347-368.

Driessen, G. (2007). *Peer group effecten op onderwijsprestaties. Een internationaal review van effecten, verklaringen en theoretische en methodologische aspecten*. Nijmegen:: ITS – Radboud Universiteit.

Driessen, G., & Merry, M. (2006). Islamic Schools in the Netherlands: Expansion or Marginalization? *Interchange, 37*(3), 201-223.

Driessen, G., & van der Slik, F. (2001). Religion, denomination, and education in the Netherlands: Cognitive and noncognitive outcomes after an era of secularization. *Journal for the Scientific Study of Religion, 40*(4), 561-572.

Dronkers, J. (2010). *Positive but also negative effects of ethnic diversity in schools on educational performance? An empirical test using cross-national PISA data (unpublished)*. Maastricht: Universiteit Maastricht.

Dronkers, J., & Levels, M. (2007). Do School Segregation and School Resources Explain Region-of-Origin Differences in the Mathematics Achievement of Immigrant Students? *Educational Research and Evaluation: An International Journal on Theory and Practice, 13*(5), 435 - 462.

Drury, D. W. (1980). Black Self-Esteem and Desegregated Schools. *Sociology of Education, 53*(2), 88-103.

Dudal, P., & Deloof, G. (2004). *Vrij centrum voor leerlingenbegeleiding. Leerlingenvolgsysteem. Wiskunde: Toetsen 5 - Basisboek*. Antwerpen: Garant.

Dumay, X., & Dupriez, V. (2008). Does the School Composition Effect Matter? Evidence from Belgian Data. *British Journal of Educational Studies, 56*(4), 440-477.

Duquet, N., Glorieux, I., Laurijssen, I., & Van Dorsselaer, Y. (2006). *Wit krijt schrijft beter*. Antwerpen: Garant.

Dusek, J. B., & Jospeh, G. (1985). The bases of teacher expectancies. In J. B. Dusek (Ed.), *Teacher expectancies* (pp. 229-250). Hillsdale, NJ: Erlbaum.

Elbaum, B., & Vaughn, S. (2001). School-based interventions to enhance the self-concept of students with learning disabilities: A meta-analysis. *Elementary School Journal, 101*(3), 303-329.

Erikson, R., Goldthorpe, J. H., & Portocarero, L. (1979). Intergenerational Class Mobility in 3 Western European Societies - England, France and Sweden. *British Journal of Sociology, 30*(4), 415-441.

Espelage, D. L., & Swearer, S. M. (2003). Research on school bullying and victimization: What have we learned and where do we go from here? *School Psychology Review, 32*(3), 365-383.

Esses, V. M., Dovidio, J. F., Jackson, L. M., & Armstrong, T. L. (2001). The immigration dilemma: The role of perceived group competition, ethnic prejudice, and national identity. *Journal of Social Issues, 57*(3), 389-412.

Esterberg, K. G. (2002). *Qualitative methods in social research*. Boston: McGraw-Hill.

Fang, Z. H. (1996). A review of research on teacher beliefs and practices. *Educational Research, 38*(1), 47-65.

Fekjaer, S. N., & Birkelund, G. E. (2007). Does the ethnic composition of upper secondary schools influence educational achievement and attainment? A multilevel analysis of the Norwegian case. *European Sociological Review, 23*(3), 309-323.

Felouzis, G. (2003). La ségrégation ethnique au collège et ses conséquences. *Revue Francaise De Sociologie, 44*(3), 413-447.

Felouzis, G. (2005). Ethnic segregation and its effects in middle school in France. *Revue Francaise De Sociologie, 46*, 3-35.

Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*(2), 117-140.

Fielding, N. (1993). Qualitative interviewing In G. N. Gilbert (Ed.), *Researching social life* (pp. 130-145). London: Sage.

Findley, M. J., & Cooper, H. M. (1983). Locus of Control and Academic-Achievement - a Literature-Review. *Journal of Personality and Social Psychology, 44*(2), 419-427.

Finn, J. D. (1972). Expectations and the educational environment. *Review of Educational Research, 42*(3), 387-410.

Fischer, M. J. (2008). Does campus diversity promote friendship diversity? A look at interracial friendships in college. *Social Science Quarterly, 89*(3), 631-655.

Frankenberg, E., & Orfield, G. (2007). *Lessons in integration : realizing the promise of racial diversity in American schools*. Charlottesville: University of Virginia Press.

Frost, M. B. (2007). Texas students' college expectations: Does high school racial composition matter? *Sociology of Education, 80*(1), 43-65.

Gaertner, S. L., & Dovidio, J. F. (2000). *Reducing intergroup bias: The common ingroup identity model*. Philadelphia, PA: Psychology Press.

Gesthuizen, M., van der Meer, T., & Scheepers, P. (2009). Ethnic Diversity and Social Capital in Europe: Tests of Putnam's Thesis in European Countries. *Scandinavian Political Studies, 32*(2), 121-142.

Glick, W. H. (1985). Conceptualizing and Measuring Organizational and Psychological Climate - Pitfalls in Multilevel Research. *Academy of Management Review, 10*(3), 601-616.

Goldsmith, P. A. (2004). Schools ' role in shaping race relations: Evidence on friendliness and conflict. *Social Problems, 51*(4), 587-612.

Goldsmith, P. R. (2010). Learning Apart, Living Apart: How the Racial and Ethnic Segregation of Schools and Colleges Perpetuates Residential Segregation. *Teachers College Record, 112*(6), 1602-1630.

Goldsmith, P. R. (2011). Coleman Revisited: School Segregation, Peers, and Frog Ponds. *American Educational Research Journal, 48*(3), 508-535.

Goodenow, C. (1993). The Psychological Sense of School Membership among Adolescents - Scale Development and Educational Correlates. *Psychology in the Schools, 30*(1), 79-90.

Graham, S. (2006). Peer victimization in school: Exploring the ethnic context. *Current Directions in Psychological Science, 15*(6), 317-321.

Gray- Little, B., & Carels, R. A. (1997). The effect of racial dissonance on academic self-esteem and achievement in Elementary, Junior High, and High School students. *Journal of Research on Adolescence, 7*(2), 109-131.

Gray-Little, B., & Hafdahl, A. R. (2000). Factors influencing racial comparisons of self-esteem: A quantitative review. *Psychological Bulletin, 126*(1), 26-54.

Guryan, J. (2004). Desegregation and black dropout rates. *American Economic Review, 94*(4), 919-943.

Hallinan, M. T., & Smith, S. S. (1985). The Effects of Classroom Racial Composition on Students Interracial Friendliness. *Social Psychology Quarterly, 48*(1), 3-16.

Halvorsen, A.-L., Lee, V. E., & Andrade, F. H. (2009). A Mixed-Method Study of Teachers' Attitudes About Teaching in Urban and Low-Income Schools. *Urban Education, 44*(2), 181-224.

Hamre, B. K., & Pianta, R. C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development, 72*(2), 625-638.

Hanish, L. D., & Guerra, N. G. (2000). The Roles of Ethnicity and School Context in Predicting Children's Victimization by Peers. *American Journal of Community Psychology, 28*(2), 201-223.

Harker, R., & Tymms, P. (2004). The Effects of Student Composition on School Outcomes. *School Effectiveness and School Improvement, 15*, 177-199.

Harter, S. (1996). Teacher and classmate influences on scholastic motivation, self-esteem, and level of voice in adolescents. In J. Juvonen & K. Wentzel (Eds.), *Social motivation: Understanding children's school adjustment* (pp. 11–42). New York: Cambridge University Press.

Harvey, D. G., & Slatin, G. T. (1975). Relationship between Childs Ses and Teacher Expectations - Test of Middle-Class Bias Hypothesis. *Social Forces, 54*(1), 140-159.

Hatcher, R., & Hirtt, N. (1999). The business agenda behind Labour's education policy'. In M. Allen, C. Benn, C. Chitty, M. Cole, R. Hatcher, N. Hirtt & G.

Rikowski (Eds.), *Business Business Business: New Labour's Education Policy* (pp. 15-24). Londen: Tufnell Press.

Haubert, J., & Fussell, E. (2006). Explaining pro-immigrant sentiment in the US: Social class, cosmopolitanism, and perceptions of immigrants. *International Migration Review, 40*(3), 489-507.

Hawley, P. H. (1999). The ontogenesis of social dominance: A strategy-based evolutionary perspective. *Developmental Review, 19*(1), 97-132.

Hermansson, H. (2007). The Ethics of NIMBY Conflicts. *Ethical Theory and Moral Practice, 10*(1), 23-34.

Hoelter, J. W. (1982). Segregation and Rationality in Black Status Aspiration Processes. *Sociology of Education, 55*(1), 31-39.

Hoffman, A. J., Knight, L. F. M., & Wallach, J. (2007). Gardening activities, education, and self-esteem - Learning outside the classroom. *Urban Education, 42*(5), 403-411.

Hooghe, M., Reeskens, T., Stolle, D., & Trappers, A. (2009). Ethnic Diversity and Generalized Trust in Europe A Cross-National Multilevel Study. *Comparative Political Studies, 42*(2), 198-223.

Hopkins, N., & Murdoch, N. (1999). The role of the 'other' in national identity: Exploring the context-dependence of the national ingroup stereotype. *Journal of Community & Applied Social Psychology, 9*(5), 321-338.

Horsford, S. D., & McKenzie, K. B. (2008). 'Sometimes I feel like the problems started with desegregation': exploring Black superintendent perspectives on desegregation policy. *International Journal of Qualitative Studies in Education, 21*(5), 443 - 455.

Howard, S., & Gill, J. (2001). 'It's like we're a normal way and everyone else is different': Australian children's constructions of citizenship and national identity. *Educational Studies, 27*(1), 87-103.

Huisman, M. (2000). Imputation of Missing Item Responses: Some Simple Techniques. *Quality and Quantity, 34*(4), 331-351.

Hutnik, N. (1991). *Ethnic minority identity : a social psychological perspective*. Oxford: Oxford University Press.

Hyman, H. H., & Singer, E. (1968). *Readings in reference group theory and research*. New York: Free Press.

Jaccard, J., Turrisi, R., & Wan, C. K. (1990). *Interaction effects in multiple regression*. Newbury Park: Sage Publications.

Jacobs, D., Rea, A., & Teney, C. (2009). *De sociale lift blijft steken. De prestaties van allochtone leerlingen in de Vlaamse Gemeenschap en de Franse Gemeenschap*. Brussel: Koning Boudewijnstichting.

Jencks, C. (1972). *Inequality; a reassessment of the effect of family and schooling in America*. New York,: Basic Books.

Jencks, C., & Mayer, S. E. (1990). The social consequences of growing up in a poor neighborhood. In L. E. Lynn & M. G. H. McGeary (Eds.), *Inner-City Poverty in the United States* (pp. 111-186). Washington, DC: National Academy Press.

Johnson, M. K., Crosnoe, R., & Elder, G. H. (2001). Students' attachment and academic engagement: The role of race and ethnicity. *Sociology of Education, 74*(4), 318-340.

Joyner, K., & Kao, G. (2000). School racial composition and adolescent racial homophily. *Social Science Quarterly, 81*(3), 810-825.

Jussim, L. (1986). Self-Fulfilling Prophecies - a Theoretical and Integrative Review. *Psychological Review, 93*(4), 429-445.

Jussim, L. (1989). Teacher Expectations - Self-Fulfilling Prophecies, Perceptual Biases, and Accuracy. *Journal of Personality and Social Psychology, 57*(3), 469-480.

Jussim, L., & Eccles, J. (1992). Teacher Expectations .2. Construction and Reflection of Student-Achievement. *Journal of Personality and Social Psychology, 63*(6), 947-961.

Jussim, L., Eccles, J., & Madon, S. (1996). Social perception, social stereotypes, and teacher expectations: Accuracy and the quest for the powerful self-fulfilling prophecy. *Advances in Experimental Social Psychology, 28*, 281-388.

Juvonen, J., Nishina, A., & Graham, S. (2001). Self-views versus peer perceptions of victim status among early adolescents. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 105-124). New York: Guilford Press.

Juvonen, J., Nishina, A., & Graham, S. (2006). Ethnic diversity and perceptions of safety in urban middle schools. *Psychological Science, 17*(5), 393-400.

Kao, G., & Thompson, J. S. (2003). Racial and ethnic stratification in educational achievement and attainment. *Annual Review of Sociology, 29*, 417-442.

Karsten, S. (2009). *School segregation*. Paper presented at the EC/OECD Meeting The Labour Market Integration of Children of Immigrants.

Karsten, S., Felix, C., Ledoux, G., Meijnen, W., Roeleveld, J., & Van Schooten, E. (2006). Choosing Segregation or Integration? The Extent and Effects of Ethnic Segregation in Dutch Cities. *Education and Urban Society, 38*(2), 228-247.

Kasen, S., Johnson, J., & Cohen, P. (1990). The Impact of School Emotional Climate on Student Psychopathology. *Journal of Abnormal Child Psychology, 18*(2), 165-177.

Kauppinen, T. M. (2008). Schools as mediators of neighbourhood effects on choice between vocational and academic tracks of secondary education in Helsinki. *European Sociological Review, 24*(3), 379-391.

Kelley, H. (1952). Two functions of reference groups. In G. SWANSON, T. NEWCOMB & E. HARTLEY (Eds.), *Readings in social psychology*. New York: Henry Holt.

King, G., Keohane, R. O., & Verba, S. (1994). *Designing social inquiry : scientific inference in qualitative research*. Princeton, N.J.: Princeton University Press.

King, K. A., Vidourek, R. A., Davis, B., & McClellan, W. (2002). Increasing self-esteem and school connectedness through a multidimensional mentoring program. *Journal of School Health, 72*(7), 294-299.

Kinket, B., & Verkuyten, M. (1999). Intergroup evaluations and social context: a multilevel approach. *European Journal of Social Psychology, 29*(2-3), 219-237.

Kivett, V. R. (1979). Religious Motivation in Middle-Age - Correlates and Implications. *Journals of Gerontology, 34*(1), 106-115.

Kornblau, B. (1982). The Teachable Pupil Survey - a Technique for Assessing Teachers Perceptions of Pupil Attributes. *Psychology in the Schools, 19*(2), 170-174.

Kristen, C. (2005). *School choice and ethnic school segregation: Primary school selection in Germany*. Münster: Waxmann Verlag.

Kuperminc, G. P., Leadbeater, B. J., & Blatt, S. J. (2001). School social climate and individual differences in vulnerability to psychopathology among middle school students. *Journal of School Psychology, 39*(2), 141-159.

Kuperminc, G. P., Leadbeater, B. J., Emmons, C., & Blatt, S. J. (1997). Perceived school climate and difficulties in the social adjustment of middle school students. *Applied Developmental Science, 1*(2), 76-88.

Lacante, M., Almaci, M., Van Esbroeck, R., Lens, W., & De Metsenaere, M. (2007). Allochtonen in het hoger onderwijs. Onderzoek naar factoren van studiekeuze en studiesucces bij allochtone eerstejaarsstudenten in het hoger onderwijs.

Lam, V., & Smith, G. (2009). African and Caribbean adolescents in Britain: ethnic identity and Britishness. *Ethnic and Racial Studies, 32*(7), 1248-1270.

Lancee, B., & Dronkers, J. (2011). Ethnic, religious and economic diversity in Dutch neighbourhoods: explaining quality of contact with neighbours, trust in the neighbourhood and inter-ethnic trust. *Journal of Ethnic and Migration Studies*.

Lauder, D., Kounali, A., Robinson, H., Goldstein, H., & Thrupp, M. (2008). Social class, pupil composition and school performance: An analysis of primary schools. *Working paper*.

Lawrence, D. (2006). *Enhancing self-esteem in the classroom* (3rd ed.). London: Sage Publications.

Lee, C. (2004). *Racial segregation and educational outcomes in metropolitan Boston.* Cambridge: The Civil Rights Project at Harvard University.

Lee, V. E., Dedrick, R. F., & Smith, J. B. (1991). The Effect of the Social-Organization of Schools on Teachers Efficacy and Satisfaction. *Sociology of Education, 64*(3), 190-208.

Lee, V. E., & Loeb, S. (2000). School size in Chicago elementary schools: Effects on teachers' attitudes and students' achievement. *American Educational Research Journal, 37*(1), 3-31.

Letki, N. (2008). Does diversity erode social cohesion? Social capital and race in British neighbourhoods. *Political Studies, 56*(1), 99-126.

Longshore, D. (1982). Race Composition and White Hostility - A Research Note on the Problem of Control in Desegregated Schools. *Social Forces, 61*(1), 73-78.

Luhtanen, R., & Crocker, J. (1992). A Collective Self-Esteem Scale - Self-Evaluation of Ones Social Identity. *Personality and Social Psychology Bulletin, 18*(3), 302-318.

Luyten, H., Visscher, A., & Witziers, B. (2005). School effectiveness research: From a review of the criticism to recommendations for further development. *School Effectiveness and School Improvement, 16*(3), 249-279.

Ma, X. (2003). Sense of Belonging to School: Can Schools Make a Difference? *Journal of Educational Research, 96*(6), 340-349.

Manski, C. F. (1993). Identification of Endogenous Social Effects - the Reflection Problem. *Review of Economic Studies, 60*(3), 531-542.

Manski, C. F. (2000). Economic analysis of social interactions. *Journal of Economic Perspectives, 14*(3), 115-136.

Marks, G. N. (2010). What aspects of schooling are important? School effects on tertiary entrance performance. *School Effectiveness and School Improvement, 21*(3), 267-287.

Marsh, H. W. (1987). The Big-Fish Little-Pond Effect on Academic Self-Concept. *Journal of Educational Psychology, 79*(3), 280-295.

Marsh, H. W. (1990). Causal Ordering of Academic Self-Concept and Academic Achievement: A Multiwave, Longitudinal Panel Analysis. *Journal of Educational Psychology, 82*(4), 646-656.

Marx, K. (1970). Critique of Hegel's 'Philosophy of right'. In J. J. O'Malley (Ed.), *Cambridge studies in the history and theory of politics* (pp. 151). Cambridge: University Press.

Maslowski, R., Scheerens, J., & Luyten, H. (2007). The effect of school autonomy and school internal decentralization on students' reading literacy. *School Effectiveness and School Improvement, 18*(3), 303-334.

Maxwell, R. (2009). Caribbean and South Asian identification with British society: the importance of perceived discrimination. *Ethnic and Racial Studies, 32*(8), 1449 - 1469.

McKown, C., & Weinstein, R. S. (2008). Teacher expectations, classroom context, and the achievement gap. *Journal of School Psychology, 46*(3), 235-261.

McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting School Connectedness: Evidence from the National Longitudinal Study of Adolescent Health.. *Journal of School Health, 72*, 138.

Merton, R. K. (1938). Social Structure and Anomie. *American Sociological Review, 3*, 672-682.

Merton, R. K. (1950). *Contributions to the theory of reference group behavior.* Glencoe, Illinois: Free Press.

Merton, R. K. (1968). *Social theory and social structure* (1968 enl. ed.). New York,: Free Press.

Meuleman, B. (2011). Perceived economic threat and anti-immigration attitudes: Effects of immigrant group size and economic conditions revisited. . In E. Davidov, P. Schmidt & J. Billiet (Eds.), *Cross-cultural analysis: methods and applications* (pp. 283-312). London: Taylor & Francis.

Mirowsky, J., & Ross, C. E. (1989). *Social causes of psychological distress*. New York: de Gruyter.

Modin, B., & Ostberg, V. (2009). School climate and psychosomatic health: a multilevel analysis. *School Effectiveness and School Improvement, 20*(4), 433-455.

Modood, T. (2005). *Multicultural politics : racism, ethnicity, and Muslims in Britain*. Minneapolis: University of Minnesota Press.

Moody, J. (2001). Race, School Integration, and Friendship Segregation in America. *American Journal of Sociology, 107*(3), 679-716.

Muller, C. (2001). The role of caring in the teacher-student relationship for at-risk students. *Sociological Inquiry, 71*(2), 241-255.

Murray, C., & Greenberg, T. M. (2000). Children's relationship with teachers and bonds with school an investigation of patterns and correlates in middle childhood. *Journal of School Psychology, 38*(5), 423-445.

Muthén, B. (1994). Multilevel covariance structure analysis. In J. Hox & I. Kreft (Eds.), *Multilevel Modeling, a special issue of Sociological Methods & Research* (pp. 376-398).

Nadeem, E., & Graham, S. (2005). Early puberty, peer victimization, and internalizing symptoms in ethnic minority adolescents. *Journal of Early Adolescence, 25*(2), 197-222.

Nash, R. (2003). Is the school composition effect real?: A discussion with evidence from the UKPISA data. *School Effectiveness and School Improvement, 14*(4), 441-457.

Nash, R., & Lauder, H. (2010). *Explaining inequalities in school achievement : a realist analysis*. Farnham, Surrey: Ashgate.

Newmann, F. M., Rutter, R. A., & Smith, M. S. (1989). Organizational-Factors That Affect School Sense of Efficacy, Community, and Expectations. *Sociology of Education, 62*(4), 221-238.

Oakes, P. J., Haslam, S. A., & Turner, J. C. (1994). *Stereotyping and social reality*. Oxford: Blackwell.

O'Moore, M., & Kirkham, C. (2001). Self-esteem and its relationship to bullying behaviour. *Aggressive Behavior, 27*(4), 269-283.

Opdenakker, M. C., Van Damme, J., De Fraine, B., Van Landeghem, G., & Onghena, P. (2002). The effect of schools and classes on mathematics achievement. *School Effectiveness and School Improvement, 13*(4), 399-427.

Opdenakker, M.-C., & Van Damme, J. (2001). Relationship between School Composition and Characteristics of School Process and their Effect on Mathematics Achievement. . *British Educational Research Journal, 27*, 407-432.

Opdenakker, M.-C., & Van Damme, J. (2006). Differences between secondary schools: A study about school context, group composition, school practice, and school effects with special attention to public and Catholic schools and types of schools. *School Effectiveness & School Improvement, 17*, 87-117.

Orfield, G. (1983). *Public school desegregation in the United States, 1968-1980*. Washington, D.C.: Joint Center for Political Studies.

Orfield, G. (2004). *Dropouts in America : confronting the graduation rate crisis*. Cambridge, MA: Harvard Education Press.

Ouseley, H. (2001). *Community Pride Not Prejudice: Making Diversity Work in Bradford*.

Palardy, G. J. (2008). Differential school effects among low, middle, and high social class composition schools: a multiple group, multilevel latent growth curve analysis. *School Effectiveness and School Improvement, 19*(1), 21-49.

Payet, J.-P. (1998). La ségrégation scolaire: Une perspective sociologique sur la violence à l'école. *Revue française de pédagogie*(123), 21-34.

Peetsma, T., van der Veen, I., Koopman, P., & van Schooten, E. (2006). Class composition influences on pupils' cognitive development. *School Effectiveness and School Improvement, 17*(3), 275-302.

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*(5), 751-783.

Phalet, K., & Swyngedouw, M. (2002). National identities and representations of citizenship: A comparison of Turks, Moroccans and working-class Belgians in Brussels. *Ethnicities, 2*(1), 5-30.

Phalet, K., & Swyngedouw, M. (2003). Measuring immigrant integration: the case of Belgium. *Migration Studies, 40*(152), 773–803.

Philippou, S. (2005). Constructing national and European identities: the case of Greek-Cypriot pupils. *Educational Studies, 31*(3), 293-315.

Phinney, J. S. (1990). Ethnic-Identity in Adolescents and Adults - Review of Research. *Psychological Bulletin, 108*(3), 499-514.

Phinney, J. S., Horenczyk, G., Liebkind, K., & Vedder, P. (2001). Ethnic Identity, Immigration, and Well-Being: An Interactional Perspective. *Journal of Social Issues, 57*, 493-510.

Pichler, F. (2010). Foundations of anti-immigrant sentiment: The variable nature of perceived group threat across changing European societies, 2002-2006. *International Journal of Comparative Sociology, 51*(6), 445-469.

Plato. (1971). The Collected Dialogues of Plato. In E. Hamilton (Ed.). Princeton: Princeton Univesity Press.

Powell, G. J. (1985). Self-Concepts among Afro-American Students in Racially Isolated Minority Schools - Some Regional Differences. *Journal of the American Academy of Child and Adolescent Psychiatry, 24*(2), 142-149.

Pullmann, H., & Allik, J. (2008). Relations of academic and general self-esteem to school achievement. *Personality and Individual Differences, 45*(6), 559-564.

Putnam, R. D. (2007). E Pluribus Unum: Diversity and Community in the Twenty-first Century The 2006 Johan Skytte Prize Lecture. *Scandinavian Political Studies, 30*(2), 137-174.

Quillian, L. (1995). Prejudice as a Response to Perceived Group Threat: Population Composition and Anti-Immigrant and Racial Prejudice in Europe. *American Sociological Review, 60*(4), 586-611.

Quillian, L., & Campbell, M. E. (2003). Beyond black and white: The present and future of multiracial friendship segregation. *American Sociological Review, 68*(4), 540-566.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models : applications and data analysis methods* (2nd ed.). Thousand Oaks: Sage Publications.

Rea, J., & Weiner, G. (1998). Cultures of Blame and Redemption—When Empowerment Becomes Control: Practitioners' Views of the Effective Schools Movement. In R. Slee, G. Weiner & S. Tomilson (Eds.), *School effectiveness for whom?: challenges to the school effectiveness and school improvement movements* (pp. 21-32). Londen: Falmer Press.

Read, F. T. (1975). Judicial evolution of the law of school integration since Brown v. Board of Education. *Law and Contemporary Problems, 39*(1), 7-49.

Reddy, R., Rhodes, J. E., & Mulhall, P. (2003). The influence of teacher support on student adjustment in the middle school years: A latent growth curve study. *Development and Psychopathology, 15*(01), 119-138.

Reizabal, L., Valencia, J., & Barrett, M. (2004). National identifications and attitudes to national ingroups and outgroups amongst children living in the Basque Country. *Infant and Child Development, 13*(1), 1-20.

Reynolds, D., Teddlie, C., Creemers, B., Scheerens, J., & Townsend, T. (2000). An Introduction to School Effectiveness Research. In D. Reynolds & C. Teddlie (Eds.), *The international handbook of school effectiveness research* (pp. 3-25). London: Falmer Press.

Riddell, S., Brown, S., & Duffield, J. (1998). The utility of qualitative research for influencing policy and practice on school effectiveness. In R. Slee & G. Weiner (Eds.), *School effectiveness for whom?: challenges to the school effectiveness and school improvement movements* (pp. 170-186). Londen: Flamer Press.

Riehl, C. (2001). Bridges to the future: The contributions of qualitative research to the sociology of education. *Sociology of Education*, 115-134.

Rist, R. C. (1970). Student Social Class and Teacher Expectations - Self-Fulfilling Prophecy in Ghetto Education. *Harvard Educational Review, 40*(3), 411-451.

Roeser, R. W., & Eccles, J. S. (1998). Adolescents' perceptions of middle school: Relation to longitudinal changes in academic and psychological adjustment. *Journal of Research on Adolescence, 8*(1), 123-158.

Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global Self-Esteem and Specific Self-Esteem - Different Concepts, Different Outcomes. *American Sociological Review, 60*(1), 141-156.

Rosenberg, M., & Simmons, R. G. (1972). *Black and white self-esteem: the urban school child*. Washington: American Sociological Association.

Rosenthal, R. (1973). Pygmalion Effect Lives. *Psychology Today, 7*(4), 56-63.

Rosenthal, R., & Jacobson, L. (1968). *Pygmalion in the classroom: teacher expectation and pupils' intellectual development*. New York: Holt.

Rosenthal, R., & Rubin, D. B. (1978). Interpersonal Expectancy Effects - the first 345 Studies. *Behavioral and Brain Sciences, 1*(3), 377-386.

Rowe, D. C., Almeida, D. M., & Jacobson, K. C. (1999). School Context and Genetic Influences on Aggression in Adolescence. *Psychological Science, 10*(3), 277-280.

Rumberger, R. W., & Palardy, G. J. (2005). Does segregation still matter? The impact of student composition on academic achievement in high school. *Teachers College Record, 107*(9), 1999-2045.

Rutter, M., Maughan, B., Mortimore, P., & Ouston, J. (1979). *Fifteen thousand hours : secondary schools and their effects on children*. Cambridge, Mass.: Harvard University Press.

Ryabov, I., & Van Hook, J. (2007). School segregation and academic achievement among Hispanic children. *Social Science Research, 36*(2), 767-788.

Ryan, M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal, 38*(2), 437-460.

Ryan, M., Stiller, J. D., & Lynch, J. H. (1994). Representations of Relationships to Teachers, Parents, and Friends as Predictors of Academic Motivation and Self-Esteem. *The Journal of Early Adolescence, 14*(2), 226-249.

Scheerens, J. (1992). *Effective Schooling: Research, Theory and Practice*. London: Cassell.

Scheerens, J., & Bosker, R. J. (1997). *The foundations of educational effectiveness* (1st ed.). Oxford, OX ; New York, N.Y.: Pergamon.

Schein, E. H. (1990). Organizational Culture. *American Psychologist, 45*(2), 109-119.

Schinkel, W. (2007). *Denken in een tijd van sociale hypochondrie. Aanzet tot een theorie voorbij de maatschappij*. Kampen: Klement.

Schinkel, W. (2008). *De gedroomde samenleving*. Kampen: Klement.

Schinkel, W. (2009). *Globalization and the State. Sociological Perspectives on the State of the State*. Basingstoke: Palgrave Macmillan.

Schnepf, S. V. (2007). Immigrants' educational disadvantage: an examination across ten countries and three surveys. *Journal of Population Economics, 20*(3), 527-545.

Schoen, L. T., & Teddlie, C. (2008). A new model of school culture: a response to a call for conceptual clarity. *School Effectiveness and School Improvement, 19*(2), 129-153.

Schofield, J. W. (1991). School Desegregation and Intergroup Relations: A Review of the Literature. *Review of Research in Education,, 17*, 335-409.

Schofield, J. W. (2004). Fostering positive intergroup relations in schools. In J. A. Banks & C. A. M. Banks (Eds.), *Handbook of research on multicultural education. Second Editon* (Vol. 2, pp. 799-812). San Francisco: Jossey-Bass.

Schwartz, S. H. (1994). Are There Universal Aspects in the Structure and Contents of Human-Values. *Journal of Social Issues, 50*(4), 19-45.

Semyonov, M., Raijman, R., & Gorodzeisky, A. (2006). The rise of anti-foreigner sentiment in European societies, 1988-2000. *American Sociological Review, 71*(3), 426-449.

Semyonov, M., Raijman, R., Tov, A. Y., & Schmidt, P. (2004). Population size, perceived threat, and exclusion: a multiple-indicators analysis of attitudes toward foreigners in Germany. *Social Science Research, 33*(4), 681-701.

Shrout, P. E., & Fleiss, J. L. (1979). Intraclass Correlations - Uses in Assessing Rater Reliability. *Psychological Bulletin, 86*(2), 420-428.

Sierens, S., Mahieu, P., & Nouwen, W. (2011). The desegregation policy in Flemish primary education. Is distributing migrant students among schools an effective

solution? In J. Bakker, E. Denessen, D. Peters & G. Walraven (Eds.), *International perspectives on countering school segregation*. Amsterdam-Apeldoorn: Garant.

Sierens, S., Van Houtte, M., Loobuyck, P., Delrue, K., & Pelleriaux, K. (2006). *Onderwijs onderweg in de immigratiesamenleving*. Gent: Academia Press.

Sigelman, L., & Welch, S. (1993). The Contact Hypothesis Revisited: Black-White Interaction and Positive Racial Attitudes. *Social Forces, 71*(3), 781-795.

Singer, J. D. (1998). Using SAS PROC MIXED to fit multilevel models, hierarchical models, and individual growth models. *Journal of Educational and Behavioral Statistics, 23*(4), 323-355.

St John, N. (1975). *School Desegregation: Outcome for Children*. New York: Wiley.

Stearns, E. (2004). Interracial friendliness and the social organization of schools. *Youth & Society, 35*(4), 395-419.

Stephan, W. G. (1978). School-Desegregation - Evaluation of Predictions Made in Brown V Board of Education. *Psychological Bulletin, 85*(2), 217-238.

Stern, G. (1970). *People in context: measuring person–environment congruence in education and industry*. New York: Wiley.

Stevens, P. A. J., Clycq, N., Timmerman, C., & Van Houtte, M. (2011). Researching race/ethnicity and educational inequality in the Netherlands: a critical review of the research literature between 1980 and 2008. *British Educational Research Journal, 37*(1), 5-43.

Stoll, L., & Myers, K. (1998). *No quick fixes : perspectives on schools in difficulty*. London: Falmer Press.

Stolle, D., Soroka, S., & Johnston, R. (2008). When does diversity erode trust? Neighborhood diversity, interpersonal trust and the mediating effect of social interactions. *Political Studies, 56*(1), 57-75.

Strand, S. (1997). Pupil Progress during Key Stage 1: a value added analysis of school effects. *British Educational Research Journal, 23*(4), 471 - 487.

Szulkin, R., & Jonsson, O. J. (2007). Ethnic segregation and educational outcomes in Swedish comprehensive schools: a multilevel analysis. *NEP: New Economic Papers*.

Tagiuri, R. (1968). The concept of organizational climate. In R. Tagiuri & G. Litwin (Eds.), *Organizational climate. Explorations of a concept*. Cambridge, MA: Harvard University Press.

Tajfel, H. (1981). *Human groups and social categories*. Cambridge: Cambridge University Press

Taylor, M. C. (1998). How white attitudes vary with the racial composition of local populations: Numbers count. *American Sociological Review, 63*(4), 512-535.

Teddlie, C., & Reynolds, D. (2000). *The international handbook of school effectiveness research*. London: Falmer Press.

Teddlie, C., & Reynolds, D. (2001). Countering the critics: Responses to recent criticisms of school effectiveness research. *School Effectiveness and School Improvement, 12*(1), 41-82.

Thomas, W. I., & Thomas, D. S. T. (1928). *The child in America; behavior problems and programs*. New York,: A. A. Knopf.

Thrupp, M. (1999). *Schools making a difference--let's be realistic! : school mix, school effectiveness, and the social limits of reform*. Buckingham England ; Philadelphia: Open University Press.

Thrupp, M. (2001). Sociological and political concerns about school effectiveness research: Time for a new research agenda. *School Effectiveness and School Improvement, 12*(1), 7-40.

Thrupp, M., Lauder, H., & Robinson, T. (2002). School composition and peer effects. *International Journal of Educational Research, 37*(5), 483-504.

Tolsma, J., van der Meer, T., & Gesthuizen, M. (2009). The impact of neighbourhood and municipality characteristics on social cohesion in the Netherlands. *Acta Politica, 44*(3), 286-313.

Tormey, R. (2006). The construction of national identity through primary school history: the Irish case. *British Journal of Sociology of Education, 27*(3), 311 - 324.

Umaña-Taylor, A. J. (2004). Ethnic identity and self-esteem: examining the role of social context. *Journal of Adolescence, 27*(2), 139-146.

Vadher, K., & Barrett, M. (2009). Boundaries of Britishness in British Indian and Pakistani young adults. *Journal of Community & Applied Social Psychology, 19*(6), 442-458.

Van Craen, M., Vancluysen, K., & Ackaert, J. (2007). *Voorbij wij en zij? De sociaal-culturele afstand tussen autochtonen en allochtonen tegen de meetlat.* Brugge: Vandenbroele.

van den Bergh, L., Denessen, E., Hornstra, L., Voeten, M., & Holland, R. W. (2010). The Implicit Prejudiced Attitudes of Teachers: Relations to Teacher Expectations

and the Ethnic Achievement Gap. *American Educational Research Journal, 47*(2), 497-527.

van der Slik, F., Driessen, G., & De Bot, K. (2006). Ethnic and socioeconomic class composition and language proficiency: a longitudinal multilevel examination in Dutch elementary schools. *European Sociological Review, 22*(3), 293-308.

van Ewijk, R., & Sleegers, P. (2010a). The effect of peer socioeconomic status on student achievement: A meta-analysis. *Educational Research Review, 5*(2), 134-150.

van Ewijk, R., & Sleegers, P. (2010b). Peer ethnicity and achievement: a meta-analysis into the compositional effect. *School Effectiveness and School Improvement, 21*(3), 237-265.

Van Houtte, M. (2002). *Zo de school, zo de slaagkansen? Academische cultuur als verklaring voor schoolverschillen in falen van leerlingen in het secundair onderwijs.* (PhD dissertation) Ghent University, Ghent.

Van Houtte, M. (2003). Reproductietheorieën getoetst De link tussen SES-compositie van de school en onderwijscultuur van leerkrachten en directie [Testing theories of reproduction: the link between the SES-composition of the school and the teaching culture of teachers and principals]. *Mens & Maatschappij, 78*(2), 119-143.

Van Houtte, M. (2004). Tracking effects on school achievement: A quantitative explanation in terms of the academic culture of school staff. *American Journal of Education, 110*(4), 354-388.

Van Houtte, M. (2005). Climate or Culture? A Plea for Conceptual Clarity in School Effectiveness Research. *School Effectiveness and School Improvement, 16*(1), 71-89.

Van Houtte, M. (2011). So where's the teacher in school effects research? : the impact of teacher's beliefs, culture, and behavior on equity and excellence in education. In K. Van den Branden, P. Van Avermaet & M. Van Houtte (Eds.), *Equity and excellence in education : towards maximal learning opportunities for all students* (pp. 75-95): Routledge.

Van Houtte, M., & Stevens, P. A. J. (2008). Sense of Futility The Missing Link Between Track Position and Self-Reported School Misconduct. *Youth & Society, 40*(2), 245-264.

Van Houtte, M., & Stevens, P. A. J. (2009). School Ethnic Composition and Students' Integration Outside and Inside Schools in Belgium. *Sociology of Education, 82*, 217-239.

Van Houtte, M., & Stevens, P. A. J. (2010a). The culture of futility and its impact on study culture in technical/vocational schools in Belgium. *Oxford Review of Education, 36*(1), 23-43.

Van Houtte, M., & Stevens, P. A. J. (2010b). School ethnic composition and aspirations of immigrant students in Belgium. *British Educational Research Journal, 36*(2), 209 - 237.

Van Landeghem, G., Van Damme, J., Opdenakker, M. C., De Fraine, B., & Onghena, P. (2002). The effect of schools and classes on noncognitive outcomes. *School Effectiveness and School Improvement, 13*(4), 429-451.

Van Maele, D., & Van Houtte, M. (2009). Faculty Trust and Organizational School Characteristics An Exploration Across Secondary Schools in Flanders. *Educational Administration Quarterly, 45*(4), 556-589.

Van Maele, D., & Van Houtte, M. (2011). The Quality of School Life: Teacher-Student Trust Relationships and the Organizational School Context. *Social Indicators Research, 100*(1), 85-100.

Verhaeghe, J., Van Damme, J., & Knipprat, H. (2011). *Value added of primary schools with high proportions of minority students: a longitudinal study. SSL-rapport SSL/OD1/2011.35*. Leuven: Steunpunt SSL.

Verhoeven, M. (2002). *École et diversité culturelle : regards croisés sur l'expérience scolaire de jeunes issus de l'immigration*. Louvain-la-Neuve: Academia-Bruylant.

Verkuyten, M. (2001). National identification and intergroup evaluations in Dutch children. *British Journal of Developmental Psychology, 19*(4), 559-571.

Verkuyten, M. (2004). *The social psychology of ethnic identity*. London: Psychology Press.

Verkuyten, M., & Thijs, J. (2002). Racist victimization among children in The Netherlands: the effect of ethnic group and school. *Ethnic and Racial Studies, 25*(2), 310-331.

Verkuyten, M., & Thijs, J. (2004). Global and ethnic self-esteem in school context: Minority and majority groups in the Netherlands. *Social Indicators Research, 67*(3), 253-281.

Vervoort, M., Scholte, R., & Overbeek, G. (2010). Bullying and Victimization Among Adolescents: The Role of Ethnicity and Ethnic Composition of School Class. *Journal of Youth and Adolescence, 39*(1), 1-11.

Wagner, U., Christ, O., Pettigrew, T. F., Stellmacher, J., & Wolf, C. (2006). Prejudice and minority proportion: Contact instead of threat effects. *Social Psychology Quarterly, 69*(4), 380-390.

Wells, A. S. (1995). Reexamining Social-Science Research on School-Desegregation - Long-Versus Short-Term Effects. *Teachers College Record, 96*(4), 691-706.

Wells, R. (2010). Children of Immigrants and Educational Expectations: The Roles of School Composition. *Teachers College Record, 112*(6), 1679-1704.

Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology, 90*(2), 202-209.

Westerbeek, K. (1999). *The colours of my classroom: a study into the effects of the ethnic composition of classrooms on the achievement of pupils from different ethnic backgrounds.* European University Institute, Florence.

Wilkes, R., & Corrigall-Brown, C. (2011). Explaining time trends in public opinion: Attitudes towards immigration and immigrants. *International Journal of Comparative Sociology, 52*(1-2), 79-99.

Wilson, A. B. (1959). Residential Segregation of Social-Classes and Aspirations of High-School Boys. *American Sociological Review, 24*(6), 836-845.

Wineburg, S. S. (1987). The Self-Fulfillment of the Self-Fulfilling Prophecy. *Educational Researcher, 16*(9), 28-37.

Wisdom, J. M. (1975). Random remarks on the role of social sciences in the judicial decision-making process in school desegregation cases. *Law and Contemporary Problems, 39*(1), 135-149.

Wright, J. C., Giammarino, M., & Parad, H. W. (1986). Social-Status in Small-Groups - Individual-Group Similarity and the Social Misfit. *Journal of Personality and Social Psychology, 50*(3), 523-536.

Wrigley, T. (2003). Is 'school effectiveness' anti-democratic? *British Journal of Educational Studies, 51*(2), 89-112.

Wrigley, T. (2004). 'School effectiveness': the problem of reductionism. *British Educational Research Journal, 30*(2), 227-244.

Yogev, A., & Ilan, Y. (1987). Does Self-Esteem Affect Educational Aspirations - the Case of the Ethnic Enclave. *Urban Education, 22*(2), 182-202.

Yun, J. T., & Kurlaender, M. (2004). School Racial Composition and Student Educational Aspirations: A Question of Equity in a Multicultural Society. *Journal of Education for Students Placed at Risk, 9*(2), 143-168.

Zirkel, S. (2005). Ongoing Issues of Racial and Ethnic Stigma in Education 50 Years after Brown v. Board. *The Urban Review, 37*(2), 107-126.

Zirkel, S., & Cantor, N. (2004). 50 years after Brown v. Board of Education: The promise and challenge of multicultural education. *Journal of Social Issues, 60*(1), 1-15.

Bijlage 1: Leerlingenvragenlijst

Vragenlijst voor de leerlingen

SCHOOLNUMMER: ……..

KLASNUMMER: ……..

LEERJAAR: 5de / 6de

ID LLN: ……

1

1. Wanneer ben je geboren?

   jaar: .....

   maand: .....

2. Ben jij … (duid aan met een kruisje)

   ❑ een jongen
   ❑ een meisje

3. Hoeveel kinderen zijn er in jouw gezin met jezelf erbij geteld?

   ❑1 ❑2 ❑3 ❑4 ❑5 ❑6 ❑7 ❑8 ❑9 ❑10(of meer)

4. Heb je broer(s) die ouder zijn dan jij?

   ❑ Ja ❑ Nee

5. Heb je zus(sen) die ouder zijn dan jij?

   ❑ Ja ❑ Nee

6. Woon je samen met ….

   ❑ je beide ouders
   ❑ alleen met je moeder
   ❑ alleen met je vader
   ❑ soms met je vader, soms met je moeder
   ❑ je vader en zijn partner
   ❑ je moeder en haar partner
   ❑ andere

7. Wat is je geloof?

   ❑ Katholiek ❑ Protestants ❑ Moslim ❑ Joods

   ❑ Vrijzinnig ❑ Ander geloof ❑ Niet gelovig

8. Hoe belangrijk is het geloof voor jou?

   ❑ Helemaal niet belangrijk
   ❑ Niet belangrijk
   ❑ Tussenin
   ❑ Belangrijk
   ❑ Zeer belangrijk

9. Ben je naar de kleuterschool geweest?

- ❑ Nee
- ❑ Ja

10. Hoe oud was je toen je begon met de kleuterklas?
(Als je niet naar de kleuterschool bent geweest, laat deze vraag dan leeg).

- ❑ ik was 2 of 3 jaar oud
- ❑ ik was 4 jaar oud
- ❑ ik was 5 jaar oud
- ❑ ik was 6 jaar of ouder

11. Heb je ooit een jaar moeten overdoen (blijven zitten)?

- ❑ Nee
- ❑ Ja

12. Als je ooit bent blijven zitten, wanneer was dit?
(Als je nooit bent blijven zitten, laat deze vraag dan leeg).

- ❑ 3de kleuterklas
- ❑ 1ste klas lagere school
- ❑ 2de klas lagere school
- ❑ 3de klas lagere school
- ❑ 4de klas lagere school
- ❑ 5de klas lagere school
- ❑ 6de klas lagere school

13. Wat was het totaalpercentage dat je vorig jaar behaalde op je eindrapport?

..... %

14. Welke percentage denk je dat je dit jaar zal behalen op rekenen?

..... %

15. Welke percentage denk je dat je dit jaar zal behalen op taal?

..... %

16. Welke totaalpercentage denk je dat je dit jaar zal behalen?

..... %

17. Geef met een kruisje aan wat van toepassing is bij je ouders.

Vader	Moeder
❑ Werkt *voltijds*	❑ Werkt *voltijds*
❑ Werkt *deeltijds*	❑ Werkt *deeltijds*
❑ Is werkloos	❑ Is werkloos
❑ Is gepensioneerd (ook brug- en prepensioen)	❑ Is gepensioneerd (ook brug- en prepensioen)
❑ Is arbeidsongeschikt (invaliditeit, ziekte)	❑ Is arbeidsongeschikt (invaliditeit, ziekte)
❑ Doet het huishouden, zorgt voor het gezin	❑ Doet het huishouden, zorgt voor het gezin

18. Wat is/was het beroep van je **vader?** Omschrijf zo duidelijk mogelijk welk werk hij doet/deed.

Beroep:.....

Omschrijving: .....

.....

.....

19. Wat is/was het beroep van je **moeder?** Noem en omschrijf zo duidelijk mogelijk welk werk zij doet/deed.

Beroep:.....

Omschrijving: .....

.....

.....

20. Wat is het **geboorteland** van de volgende personen?

Persoon	**Geboorteland** (bvb. België, Turkije, Marokko, …)
Jij	
Je moeder	
Je vader	
Moeder van je moeder	
Moeder van je vader	

4

21. Duid met een kruisje aan in welke mate je akkoord gaat met de volgende uitspraken.

		helemaal **niet** akkoord	niet akkoord	tussenin	akkoord	helemaal akkoord
a.	Er zijn heel wat zaken die ik belangrijker vind dan leren.	❑	❑	❑	❑	❑
b.	Leren is tijdverlies.	❑	❑	❑	❑	❑
c.	Voor mij is leren heel belangrijk omdat men zich zo ontwikkelt.	❑	❑	❑	❑	❑
d.	Ik begrijp niet waarom leren belangrijk is voor mijn verdere leven.	❑	❑	❑	❑	❑
e.	Ik leer niet graag.	❑	❑	❑	❑	❑
f.	Iemand die altijd alle lessen leert, is een strever/uitslover	❑	❑	❑	❑	❑
g.	Ik houd van schoolwerk waarvan ik bijleer, ook al maak ik veel fouten	❑	❑	❑	❑	❑
h.	Een belangrijke reden waarom ik mijn schoolwerk doe, is nieuwe dingen leren.	❑	❑	❑	❑	❑
i.	Ik houd van schoolwerk dat me aan het denken zet.	❑	❑	❑	❑	❑
j.	Een belangrijke reden waarom ik mijn schoolwerk doe, is er beter in worden.	❑	❑	❑	❑	❑
k.	Een belangrijke reden waarom ik mijn schoolwerk doe, is dat ik het leuk vind.	❑	❑	❑	❑	❑
l.	Ik doe mijn schoolwerk omdat het me interesseert.	❑	❑	❑	❑	❑
m.	Ik wil het op school beter doen dan mijn klasgenoten.	❑	❑	❑	❑	❑
n.	Ik voel me succesvol wanneer ik het beter doe dan de meeste van mijn klasgenoten.	❑	❑	❑	❑	❑
o.	Ik laat de leerkrachten graag merken dat ik slimmer ben dan mijn klasgenoten.	❑	❑	❑	❑	❑
p.	Het beter doen dan mijn klasgenoten is belangrijk voor mij.	❑	❑	❑	❑	❑
q.	Ik voel me pas echt goed als ik als enige de vragen van de leerkrachten kan beantwoorden.	❑	❑	❑	❑	❑
r.	Het is belangrijk voor mij dat mijn klasgenoten vinden dat ik goed ben in schoolwerk.	❑	❑	❑	❑	❑
s.	Voor mensen als ik is er weinig kans dat we in het leven bereiken wat we graag willen.	❑	❑	❑	❑	❑
t.	Mensen zoals ik zullen het nooit goed doen op school, zelfs al proberen we nog zo hard.	❑	❑	❑	❑	❑
u.	Als ik hard werk, kan ik het goed doen op school.	❑	❑	❑	❑	❑
v.	Leerlingen zoals ik hebben geen geluk op school.	❑	❑	❑	❑	❑
w.	Op school is punten halen een kwestie van geluk hebben.	❑	❑	❑	❑	❑

22. Hoe goed of slecht kan je in het Nederlands:

	In het Nederlands…	Heel slecht	Slecht	Tussenin	Goed	Heel goed
a.	lezen	❑	❑	❑	❑	❑
b.	schrijven	❑	❑	❑	❑	❑
c.	spreken	❑	❑	❑	❑	❑
d.	begrijpen	❑	❑	❑	❑	❑

23. Spreek je soms een andere taal dan het Nederlands?

❑ Nee

❑ Ja: welke taal? _____

24. Zo ja, hoe goed of slecht kan je in die taal:

(Als je enkel Nederlands spreekt, laat deze vraag dan leeg).

	in andere taal…	Heel slecht	Slecht	Tussenin	Goed	Heel goed
e.	lezen	❑	❑	❑	❑	❑
f.	schrijven	❑	❑	❑	❑	❑
g.	spreken	❑	❑	❑	❑	❑
h.	begrijpen	❑	❑	❑	❑	❑

25. In welke taal spreek jij in de volgende situaties.

(Als je enkel Nederlands spreekt, duid dan overal 'Altijd Nederlands' aan).

		Altijd een andere taal	Meestal een andere taal	Soms Nederlands soms een andere taal	Meestal Nederlands	Altijd Nederlands
a.	Thuis met je vader	❑	❑	❑	❑	❑
b.	Thuis met je moeder	❑	❑	❑	❑	❑
c.	Thuis met je broers / zussen	❑	❑	❑	❑	❑
d.	**In de klas** met je vrienden	❑	❑	❑	❑	❑
e.	**Op de speelplaats** met je vrienden	❑	❑	❑	❑	❑
f.	**Buiten** de school met je vrienden	❑	❑	❑	❑	❑
g.	**Op internet** met je vrienden.	❑	❑	❑	❑	❑

6

26. Duid aan in welke mate je akkoord gaat met de volgende uitspraken.

	helemaal **niet** akkoord	niet akkoord	tussenin	akkoord	helemaal akkoord
a. Mijn leerkrachten durven mij belachelijk maken in het bijzijn van andere mensen.	❑	❑	❑	❑	❑
b. Als ik iets wil vertellen, doen mijn leerkrachten alsof ze me niet horen.	❑	❑	❑	❑	❑
c. Mijn leerkrachten aanvaarden mij zoals ik ben.	❑	❑	❑	❑	❑
d. Mijn leerkrachten hebben vertrouwen in mij.	❑	❑	❑	❑	❑
e. Ik heb het gevoel dat mijn leerkrachten heel weinig om mij geven.	❑	❑	❑	❑	❑
f. Mijn leerkrachten zien alleen mijn fouten.	❑	❑	❑	❑	❑
g. Mijn leerkrachten geven me het gevoel dat ik niets goed kan doen.	❑	❑	❑	❑	❑
h. De leerkrachten geven mij minder respect dan ik verdien.	❑	❑	❑	❑	❑
i. De leerkrachten geven mij lagere punten op toetsen of examens dan wat ik verdien.	❑	❑	❑	❑	❑
j. De leerkrachten straffen mij zonder reden.	❑	❑	❑	❑	❑

27. Duid aan hoe vaak je met deze activiteiten bezig bent **buiten de school.**

	Nooit	Bijna Nooit	Soms	Vaak	Heel Vaak
a. Sporten	❑	❑	❑	❑	❑
b. Muziek spelen of maken	❑	❑	❑	❑	❑
c. Dansen	❑	❑	❑	❑	❑
d. Naar sportwedstrijden gaan	❑	❑	❑	❑	❑
e. Tekenen of knutselen	❑	❑	❑	❑	❑
f. Buiten spelen	❑	❑	❑	❑	❑
g. Gamen	❑	❑	❑	❑	❑
h. Chatten op internet	❑	❑	❑	❑	❑
i. Naar de kerk gaan	❑	❑	❑	❑	❑
j. Naar de moskee gaan	❑	❑	❑	❑	❑
k. Koranschool	❑	❑	❑	❑	❑
l. Catechese (buiten school)	❑	❑	❑	❑	❑
m. Naar de bibliotheek gaan	❑	❑	❑	❑	❑
n. Tv of film kijken	❑	❑	❑	❑	❑

28. Duid aan of je lid bent van volgende verenigingen?

	Ja	Nee
a. Sportverenging	❑	❑
b. Jeugdbeweging	❑	❑
c. Muziekschool	❑	❑
d. Toneelschool	❑	❑
e. Tekenschool	❑	❑
f. Dansschool	❑	❑

29. Duid aan in welke mate je akkoord gaat met de volgende uitspraken.

		helemaal **niet** akkoord	niet akkoord	tussenin	akkoord	helemaal akkoord
a.	Ik aanvaard mezelf zoals ik ben.	❑	❑	❑	❑	❑
b.	Over het algemeen ben ik tevreden over mezelf.	❑	❑	❑	❑	❑
c.	Soms denk ik dat ik nergens goed voor ben en helemaal niet deug.	❑	❑	❑	❑	❑
d.	Ik denk dat ik een aantal goede eigenschappen bezit.	❑	❑	❑	❑	❑
e.	Ik ben een waardevol persoon, minstens evenwaardig aan anderen.	❑	❑	❑	❑	❑
f.	Ik wou dat ik meer respect kon hebben voor mezelf.	❑	❑	❑	❑	❑
g.	Nu en dan voel ik me nutteloos.	❑	❑	❑	❑	❑
h.	Ik heb maar weinig eigenschappen om trots op te zijn.	❑	❑	❑	❑	❑
i.	Ik neem een positieve houding aan tegenover mezelf.	❑	❑	❑	❑	❑
j.	Ik zal nooit bekwaam zijn het even goed te doen als de meeste anderen.	❑	❑	❑	❑	❑
k.	Al bij al ben ik geneigd mezelf een mislukkeling te noemen.	❑	❑	❑	❑	❑
l.	Ik denk dat ik fier mag zijn op mezelf.	❑	❑	❑	❑	❑
m.	Ik denk dat ik goed kan leren.	❑	❑	❑	❑	❑
n.	Mijn klasgenoten kunnen beter leren dan ik.	❑	❑	❑	❑	❑
o.	Als ik een toets moet maken, dan heb ik meestal het gevoel dat ik het wel kan.	❑	❑	❑	❑	❑
p.	Als ik iets geleerd heb, heb ik vaak het gevoel dat ik er maar weinig over kan vertellen.	❑	❑	❑	❑	❑
q.	Ik denk dat ik de leerstof wel aankan.	❑	❑	❑	❑	❑
r.	Ik vrees dat de toetsen op het einde van het jaar voor mij een mislukking worden.	❑	❑	❑	❑	❑
s.	Het huiswerk vind ik meestal nogal gemakkelijk.	❑	❑	❑	❑	❑
t.	Ik verwerk de leerstof meestal trager dan de anderen van mijn klas.	❑	❑	❑	❑	❑
u.	Ik kan het tempo van de lessen goed volgen.	❑	❑	❑	❑	❑

30. Duid aan in welke mate je akkoord gaat met de volgende uitspraken.

	helemaal **niet** akkoord	niet akkoord	tussenin	akkoord	helemaal akkoord
a. Ik voel me echt een deel van deze school.	❑	❑	❑	❑	❑
b. Wanneer ik ergens goed in ben, wordt dit op deze school ook opgemerkt.	❑	❑	❑	❑	❑
c. Mensen als ik worden op deze school moeilijk aanvaard.	❑	❑	❑	❑	❑
d. Mijn mening wordt door de medeleerlingen ernstig genomen.	❑	❑	❑	❑	❑
e. De meeste leerkrachten zijn geïnteresseerd in mij.	❑	❑	❑	❑	❑
f. Soms heb ik het gevoel dat ik op deze school niet pas.	❑	❑	❑	❑	❑
g. Er is zeker één volwassene op school waarmee ik kan praten als ik een probleem heb.	❑	❑	❑	❑	❑
h. Iedereen op school is vriendelijk tegen mij.	❑	❑	❑	❑	❑
i. De leerkrachten op deze school zijn niet geïnteresseerd in mensen zoals ik.	❑	❑	❑	❑	❑
j. Ik neem deel aan verschillende activiteiten op deze school.	❑	❑	❑	❑	❑
k. Ik word met evenveel respect behandeld als andere leerlingen.	❑	❑	❑	❑	❑
l. Ik voel me anders dan de meeste leerlingen hier op school.	❑	❑	❑	❑	❑
m. Ik kan echt mezelf zijn op deze school.	❑	❑	❑	❑	❑
n. De mensen op school weten dat ik goed werk kan leveren.	❑	❑	❑	❑	❑
o. Ik wou dat ik op een andere school zat.	❑	❑	❑	❑	❑
p. De andere leerlingen aanvaarden me zoals ik ben.	❑	❑	❑	❑	❑
q. Ik ben trots op deze school te zitten.	❑	❑	❑	❑	❑
r. De leerkrachten respecteren mij.	❑	❑	❑	❑	❑

31. Duid aan in welke mate je akkoord gaat met de volgende uitspraken

	helemaal **niet** akkoord	niet akkoord	tussenin	akkoord	helemaal akkoord
a. Mijn ouders durven mij belachelijk maken in het bijzijn van andere mensen	❑	❑	❑	❑	❑
b. Als ik iets wil vertellen, doen mijn ouders alsof ze me niet horen.	❑	❑	❑	❑	❑
c. Mijn ouders aanvaarden mij zoals ik ben.	❑	❑	❑	❑	❑
d. Mijn ouders hebben vertrouwen in mij.	❑	❑	❑	❑	❑
e. Ik heb het gevoel dat mijn ouders heel weinig om mij geven.	❑	❑	❑	❑	❑
f. Mijn ouders zien alleen mijn fouten.	❑	❑	❑	❑	❑
g. Mijn ouders geven me het gevoel dat ik niets goed kan doen.	❑	❑	❑	❑	❑

32. Gelden de volgende zaken voor jouw ouders?

	Nooit	Meestal **Niet**	Soms	Meestal **Wel**	Altijd
a. Nemen je ouders deel aan de schoolactiviteiten (bvb. schoolfeesten, opendeurdagen)?	❑	❑	❑	❑	❑
b. Gaan je ouders naar het oudercontact?	❑	❑	❑	❑	❑
c. Letten je ouders er op of je je huiswerk maakt?	❑	❑	❑	❑	❑
d. Letten je ouders er op dat je leert?	❑	❑	❑	❑	❑
e. Weten je ouders welke punten je hebt op taken, toetsen, examens?	❑	❑	❑	❑	❑
f. Hebben je ouders precieze verwachtingen over welke punten je moet halen?	❑	❑	❑	❑	❑
g. Zijn je ouders geïnteresseerd in wat er gebeurt op school?	❑	❑	❑	❑	❑
h. Zijn je ouders geïnteresseerd in wat je leert op school?	❑	❑	❑	❑	❑

33. Wat is de studierichting die je het **liefst** zou willen volgen in het middelbaar **als je het zou mogen kiezen?**

1) ❑ Economie (ASO)
2) ❑ Elektrische installaties (BSO)
3) ❑ Elektromechanica (TSO)
4) ❑ Handel (TSO)
5) ❑ Hout of metaalbewerking (BSO)
6) ❑ ICT: Informatica en communicatietechnieken (TSO)
7) ❑ Kantoor / Verkoop (BSO)
8) ❑ Kunstonderwijs (KSO)
9) ❑ Latijn (ASO)
10) ❑ Lichamelijke opvoeding en sport (TSO)
11) ❑ Moderne talen (ASO)
12) ❑ Sociaal technische wetenschappen (TSO)
13) ❑ Sportwetenschappen (ASO)
14) ❑ Verzorging (BSO)
15) ❑ Voeding (BSO)
16) ❑ Wetenschappen (ASO)
17) ❑ Andere richting ASO
18) ❑ Andere richting BSO
19) ❑ Andere richting TSO

34. We kunnen niet altijd doen wat we willen. Welke studierichting denk je dat je **echt zal volgen?**

1) ❑ Economie (ASO)
2) ❑ Elektrische installaties (BSO)
3) ❑ Elektromechanica (TSO)
4) ❑ Handel (TSO)
5) ❑ Hout of metaalbewerking (BSO)
6) ❑ ICT: Informatica en communicatietechnieken (TSO)
7) ❑ Kantoor / Verkoop (BSO)
8) ❑ Kunstonderwijs (KSO)
9) ❑ Latijn (ASO)
10) ❑ Lichamelijke opvoeding en sport (TSO)
11) ❑ Moderne talen (ASO)
12) ❑ Sociaal technische wetenschappen (TSO)
13) ❑ Sportwetenschappen (ASO)
14) ❑ Verzorging (BSO)
15) ❑ Voeding (BSO)
16) ❑ Wetenschappen (ASO)
17) ❑ Andere richting ASO
18) ❑ Andere richting BSO
19) ❑ Andere richting TSO

35. Duid aan in welke mate je akkoord gaat met de volgende uitspraken.

	helemaal **niet** akkoord	niet akkoord	tussenin	akkoord	helemaal akkoord
a Ik zie mezelf als een **Belg**	❑	❑	❑	❑	❑
b Ik vind het vaak jammer dat ik een Belg ben.	❑	❑	❑	❑	❑
c. Ik ben blij dat ik een Belg ben.	❑	❑	❑	❑	❑
d Ik heb vaak het gevoel dat België waardeloos is.	❑	❑	❑	❑	❑
e Ik heb een goed gevoel over België.	❑	❑	❑	❑	❑
f. Ik zie mezelf als een **Vlaming**	❑	❑	❑	❑	❑
g Ik vind het vaak jammer dat ik een Vlaming ben.	❑	❑	❑	❑	❑
h Ik ben blij dat ik een Vlaming ben.	❑	❑	❑	❑	❑
i. Ik heb vaak het gevoel dat Vlaanderen waardeloos is.	❑	❑	❑	❑	❑
j. Ik heb een goed gevoel over Vlaanderen.	❑	❑	❑	❑	❑
k. Ik zie mezelf als een **Europeaan.**	❑	❑	❑	❑	❑
l. Ik vind het vaak jammer dat ik een Europeaan ben.	❑	❑	❑	❑	❑
m Ik ben blij dat ik een Europeaan ben.	❑	❑	❑	❑	❑
n Ik heb vaak het gevoel dat Europa waardeloos is.	❑	❑	❑	❑	❑
o Ik heb een goed gevoel over Europa.	❑	❑	❑	❑	❑

36. Gelden de volgende zaken voor jou:

	Nooit	**Bijna Nooit**	**Soms**	**Vaak**	**Heel Vaak**
a. Ik word op deze school gepest.	❑	❑	❑	❑	❑
b. Ik word op deze school uitgesloten.	❑	❑	❑	❑	❑
c. Ik word op deze school uitgescholden.	❑	❑	❑	❑	❑
d. Leerlingen zoals ik worden op deze school gepest.	❑	❑	❑	❑	❑
e. Leerlingen zoals ik worden op deze school uitgesloten.	❑	❑	❑	❑	❑
f. Leerlingen zoals ik worden op deze school uitgescholden.	❑	❑	❑	❑	❑

12

37. Hoeveel van jouw vrienden op school zijn Belgen?

❑ geen enkele ❑ enkele ❑ de helft ❑ de meeste ❑ allemaal

38. Hoeveel van jouw vrienden op school zijn niet-Belgen, bijvoorbeeld Turken, Marokkanen, Italianen, Polen, Congolezen, Kosovaren, …?

❑ geen enkele ❑ enkele ❑ de helft ❑ de meeste ❑ allemaal

39. Hoeveel van jouw vrienden buiten de school zijn Belgen?

❑ geen enkele ❑ enkele ❑ de helft ❑ de meeste ❑ allemaal

40. Hoeveel van jouw vrienden buiten de school zijn niet-Belgen?

❑ geen enkele ❑ enkele ❑ de helft ❑ de meeste ❑ allemaal

41. Hoe vaak heb jij op school ruzie met Belgen?

❑ nooit ❑ bijna nooit ❑ soms ❑ vaak ❑ heel vaak

42. Hoe vaak heb jij op school ruzie met niet-Belgen?

❑ nooit ❑ bijna nooit ❑ soms ❑ vaak ❑ heel vaak

43. Duid aan in welke mate je akkoord gaat met de volgende uitspraken.

Doordat ik naar deze school kom …	helemaal **niet** akkoord	niet akkoord	tussenin	akkoord	helemaal akkoord
a. ben ik me minderwaardig gaan voelen.	❑	❑	❑	❑	❑
b. ben ik me soms nutteloos gaan voelen.	❑	❑	❑	❑	❑
c. ben ik me minder bekwaam gaan voelen.	❑	❑	❑	❑	❑
d. ben ik gaan twijfelen aan mezelf.	❑	❑	❑	❑	❑
e. schaam ik me soms.	❑	❑	❑	❑	❑
f. doen sommige mensen alsof ik minder kan dan een ander	❑	❑	❑	❑	❑
g. behandelen sommige mensen me met minder respect.	❑	❑	❑	❑	❑
h. zijn sommige mensen minder op hun gemak bij me.	❑	❑	❑	❑	❑
i. zijn sommige mensen me gaan vermijden.	❑	❑	❑	❑	❑
j. hebben sommige mensen me in de steek gelaten.	❑	❑	❑	❑	❑

Goed gewerkt!

Hier moet je even stoppen,

zo dadelijk gaan we verder

14

1. Als ik de helft neem van 40 bekom ik het dubbel van ☐

2. Hoeveel keer 100 is er in 10 000 ? ☐ keer 100

3. Welk getal komt er juist 2 plaatsen voor 171 ? ☐

4. Welk getal is 300 meer dan het vierde deel van 100 ? ☐

5. Hoeveel is 75 minder dan 6 honderdtallen ? ☐

6. Juist in het midden tussen 230 en 270 ligt het getal ☐

7. De uitkomst van 4 x 199 ligt het dichtst bij
   500 600 700 800 900

Tellen met sprongen. Zoek het volgende getal van iedere reeks

8. 50 75 100 125 150 175 ☐

9. 560 610 660 710 ☐

10. 900 650 400 ☐

11. Welk getal bekomt men als men het grootste en het kleinste getal van deze reeks bij elkaar optelt ? 413 799 801 160 ☐

12. Greet en Hans hebben samen 19 parels.
    Hans heeft 1 parel meer dan Greet. Hoeveel parels heeft Greet ? ☐

13. Vier jongens verdelen eerlijk 120 knikkers. Ieder krijgt ☐ knikkers.

14. In één bakje zijn er tussen 2 kg en 3 kg pruimen. Hoeveel pruimen zijn er ongeveer in vijf van die bakjes ? 5 12 18 23 28

15. Ik ben 14 jaar. Ik ben 2 jaar jonger dan mijn broer en ik ben 4 jaar ouder dan mijn zus. Hoe oud zijn we samen ? ☐

15

➔ Omkring in iedere reeks de breuk met de **grootste** waarde

→ $\frac{1}{2}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{5}$

→ $\frac{3}{8}$ $\frac{7}{8}$ $\frac{1}{8}$ $\frac{5}{8}$

→ $\frac{5}{9}$ $\frac{5}{6}$ $\frac{5}{7}$ $\frac{5}{5}$

➔ $\frac{1}{5}$ van 20 is ☐ $\frac{2}{3}$ van 30 is ☐ $\frac{1}{2}$ van ☐ is 40

➔ 30 is $\frac{1}{3}$ van ☐ 0,5 = $\frac{\quad}{20}$

➔ 2 x $\frac{2}{7}$ = ☐ $\frac{1}{8}$ + $\frac{5}{8}$ = ☐

11. Omkring het **grootste** getal 79,89 81,58 79,96 82,37 82,9

12. Welk getal ligt het dichtst bij 673,5 ?
701,5 615,75 661,25 607,35 367,50

13. Schrijf het getal dat bestaat uit 7 E, 3 t en 4 d ☐

14. 1,60 = 4 x ☐

15. Welk getal is het vierde deel van 202 ? 50,75 51,25 48,04 52 50,5

16

REKENTECHNIEK

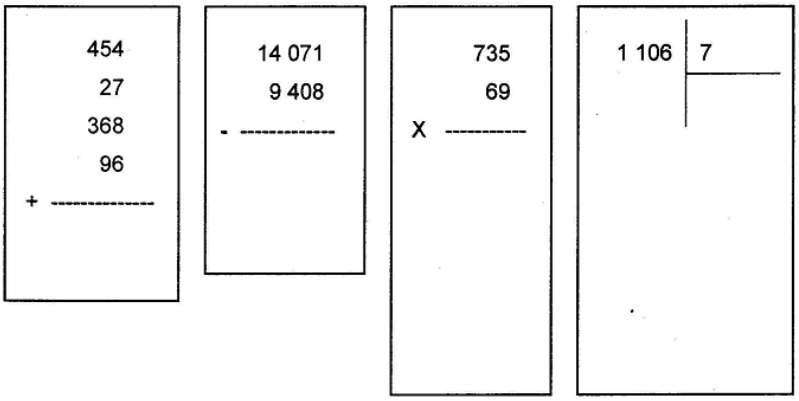
65 + 70 =	72 - 28 =
199 + 199 =	525 - 175 =
475 + 250 =	401 - 130 =
836 + ... = 1 000	655 - 299 =

70 x 6 =	210 : 7 =
150 x 5 =	2 500 : 50 =

6,7 + 2,5 =	1,8 x 4 =
12,9 + 4,25 =	20,05 x 10 =
10 - 5,7 =	18 : 4 =
24,88 - 12,2 =	15,5 : 5 =
100 - ..... = 91,35	10 : ..... = 0,1

17

CIJFEREN



Zelf ordenen onder elkaar en dan uitrekenen

A. Optellen: 172,3 + 64,56 + 101,89 =

B. Aftrekken: 805,61 - 179,44 =

C. Vermenigvuldigen: 68,73 x 27 =

D. Delen: 740,35 : 5 =

A Optellen	B Aftrekken	C Vermenigvuld.	D Delen

18

Bijlage 2: Leerkrachtenvragenlijst

* **1. Gelieve uw login in te geven. Deze bestaat uit 4 cijfers die vermeld staan op uw brief.**

2. Wat is uw geboortedatum? (DD/MM/YYYY)

3. Wat is uw geslacht?

◯ Vrouwelijk ◯ Mannelijk

*** 4. Bent u? (meerdere antwoorden mogelijk)**

- ☐ Leerkracht in het 1ste leerjaar
- ☐ Leerkracht in het 2de leerjaar
- ☐ Leerkracht in het 3de leerjaar
- ☐ Leerkracht in het 4de leerjaar
- ☐ Leerkracht in het 5de leerjaar
- ☐ Leerkracht in het 6de leerjaar
- ☐ GOK-Leerkracht
- ☐ Zorgcoördinator
- ☐ Leerkracht L.O.
- ☐ Leerkracht religieuze opvoeding / zedenleer
- ☐ Andere

5. Hoeveel jaar geeft u al les (dit schooljaar inbegrepen)?

6. Hoeveel jaar geeft u al les op *deze school* (dit schooljaar inbegrepen)?

7. Welk(e) diploma('s) bezit u? (meerdere antwoorden mogelijk)

- ☐ Algemeen Secundair Onderwijs
- ☐ Technisch Secundair Onderwijs
- ☐ Beroepssecundair Onderwijs
- ☐ Hoger Onderwijs Korte Type
- ☐ Hoger Onderwijs Lange Type
- ☐ Universiteit
- ☐ Universitaire Lerarenopleiding (Aggregaat)
- ☐ Getuigschrift Pedagogische Bekwaamheid (of gelijkwaardig)

8. Wat is/was het beroep van uw vader? Kan u indien nodig een korte omschrijving geven.

9. Wat is/was het beroep van uw moeder? Kan u indien nodig een korte omschrijving geven.

10. Bent u van allochtone origine?

- ◯ Ja
- ◯ Nee

*** 11. De volgende uitspraken hebben betrekking op de manier waarop u uw werk beleeft en hoe u zich daarbij voelt. Wilt u aangeven hoe vaak iedere uitspraak op u van toepassing is?**

	Nooit	Sporadisch	Af en toe	Regelmatig	Dikwijls	Zeer dikwijls	Altijd
Ik voel me mentaal uitgeput door mijn werk.	◯	◯	◯	◯	◯	◯	◯
Aan het einde van een werkdag voel ik me leeg.	◯	◯	◯	◯	◯	◯	◯
Ik voel me vermoeid als ik s'morgens opsta en er weer een werkdag voor mij ligt.	◯	◯	◯	◯	◯	◯	◯
Ik denk dat ik me goed in de belevingswereld van leerlingen kan verplaatsen.	◯	◯	◯	◯	◯	◯	◯
Ik heb het gevoel dat ik sommige leerlingen te onpersoonlijk behandel.	◯	◯	◯	◯	◯	◯	◯
De hele dag met mensen werken vormt een zware belasting voor mij	◯	◯	◯	◯	◯	◯	◯
Ik weet de problemen van mijn leerlingen adequaat op te lossen.	◯	◯	◯	◯	◯	◯	◯
Ik voel me opgebrand door mijn werk.	◯	◯	◯	◯	◯	◯	◯
Ik heb het gevoel dat ik door mijn werk het leven van anderen positief beïnvloed.	◯	◯	◯	◯	◯	◯	◯
Ik heb het gevoel dat ik onverschilliger ben geworden tegenover mensen sinds ik deze baan heb.	◯	◯	◯	◯	◯	◯	◯
Ik maak me zorgen dat mijn werk me emotioneel verhardt.	◯	◯	◯	◯	◯	◯	◯
Ik voel mij gefrustreerd door mijn baan.	◯	◯	◯	◯	◯	◯	◯
Ik denk dat ik me teveel inzet voor mijn werk.	◯	◯	◯	◯	◯	◯	◯
Het kan me echt niet schelen wat er van mijn leerlingen terecht komt.	◯	◯	◯	◯	◯	◯	◯
Ik kan gemakkelijk een ontspannen sfeer scheppen met mijn leerlingen.	◯	◯	◯	◯	◯	◯	◯
Als het lesgeven erop zit kijk ik er tevreden op terug.	◯	◯	◯	◯	◯	◯	◯
Ik heb het gevoel dat ik in deze baan veel waardevolle dingen bereik.	◯	◯	◯	◯	◯	◯	◯
Ik voel me aan het einde van mijn latijn.	◯	◯	◯	◯	◯	◯	◯
In mijn werk ga ik heel nuttig om met emotionele problemen.	◯	◯	◯	◯	◯	◯	◯
Ik heb het gevoel dat leerlingen mij de schuld geven van hun leerproblemen.	◯	◯	◯	◯	◯	◯	◯

12. Duid aan in welke mate u akkoord gaat met de volgende uitspraken:

	niet	weinig	redelijk	veel	heel veel
In welke mate kan u storend gedrag in de klas in de hand houden?	○	○	○	○	○
In welke mate bent u in staat leerlingen die weinig interesse vertonen te motiveren?	○	○	○	○	○
In welke mate kan u leerlingen laten geloven dat ze het goed kunnen doen op school?	○	○	○	○	○
In welke mate kan u leerlingen helpen studeren waardevol te vinden?	○	○	○	○	○
In welke mate kan u goede vragen voor uw leerlingen verzinnen?	○	○	○	○	○
In welke mate bent u in staat de leerlingen de regels te laten volgen?	○	○	○	○	○
In welke mate bent u in staat een leerling die lawaai maakt of stoort te kalmeren?	○	○	○	○	○
In welke mate bent u in staat tot overleg met de leerlingen?	○	○	○	○	○
In welke mate bent u in staat een verscheidenheid aan toetstechnieken te gebruiken?	○	○	○	○	○
In welke mate bent u in staat een alternatief voorbeeld of een alternatieve verklaring te geven wanneer leerlingen in de war zijn?	○	○	○	○	○
In welke mate kan u een gezin bijstaan zodat hun kinderen het goed doen op school?	○	○	○	○	○
In welke mate bent u in staat alternatieve methodes toe te passen in de klas?	○	○	○	○	○

13. Duid aan in welke mate u akkoord gaat met de volgende uitspraken.

	absoluut niet akkoord	niet akkoord	neutraal	akkoord	volledig akkoord
Ik aanvaard mezelf zoals ik ben.	○	○	○	○	○
Over het algemeen ben ik tevreden over mezelf.	○	○	○	○	○
Soms denk ik dat ik nergens goed voor ben en helemaal niet deug.	○	○	○	○	○
Ik denk dat ik een aantal goede eigenschappen bezit.	○	○	○	○	○
Ik ben een waardevol persoon, minstens evenwaardig aan anderen.	○	○	○	○	○
Ik wou dat ik meer respect kon hebben voor mezelf.	○	○	○	○	○
Nu en dan voel ik me nutteloos.	○	○	○	○	○
Ik heb niet zoveel eigenschappen om trots op te zijn.	○	○	○	○	○
Ik neem een positieve houding aan tegenover mezelf.	○	○	○	○	○
Ik zal nooit bekwaam zijn het even goed te doen als de meeste anderen.	○	○	○	○	○
Al bij al ben ik geneigd mezelf een mislukkeling te noemen.	○	○	○	○	○
Ik denk dat ik fier mag zijn op mezelf.	○	○	○	○	○

*** 14. Geef aan in welke mate u akkoord gaat met volgende uitspraken als leerkracht van deze school. 'Ik vind dat op deze school de leerlingen over het algemeen...**

	absoluut niet akkoord	niet akkoord	neutraal	akkoord	volledig akkoord
aangenaam zijn in de omgang.	◯	◯	◯	◯	◯
zich goed kunnen concentreren.	◯	◯	◯	◯	◯
zelfvertrouwen hebben.	◯	◯	◯	◯	◯
vriendelijk zijn.	◯	◯	◯	◯	◯
veel verbeelding hebben.	◯	◯	◯	◯	◯
rustig zijn.	◯	◯	◯	◯	◯
sociaal goed aangepast zijn.	◯	◯	◯	◯	◯
taken op tijd afmaken.	◯	◯	◯	◯	◯
emotioneel stabiel zijn.	◯	◯	◯	◯	◯
sterk verbaal bekwaam zijn.	◯	◯	◯	◯	◯
van schoolwerk houden.	◯	◯	◯	◯	◯
slim zijn.	◯	◯	◯	◯	◯
veel inzicht hebben.	◯	◯	◯	◯	◯
richtlijnen goed navolgen.	◯	◯	◯	◯	◯
rekening houden met anderen.	◯	◯	◯	◯	◯
goed meewerken.	◯	◯	◯	◯	◯
ondernemend zijn.	◯	◯	◯	◯	◯
logisch/rationeel denken.	◯	◯	◯	◯	◯
leergierig zijn.	◯	◯	◯	◯	◯
extravert zijn.	◯	◯	◯	◯	◯
graag deelnemen aan lesactiviteiten.	◯	◯	◯	◯	◯
opgewekt zijn.	◯	◯	◯	◯	◯
intelligent zijn.	◯	◯	◯	◯	◯
ernstig zijn.	◯	◯	◯	◯	◯
enthousiast zijn in de les.	◯	◯	◯	◯	◯
zich kunnen inleven in anderen.	◯	◯	◯	◯	◯
eerlijk zijn.	◯	◯	◯	◯	◯
een goed gevoel voor humor hebben.	◯	◯	◯	◯	◯
bereiken wat op basis van hun leeftijd kan verwacht worden (academisch).	◯	◯	◯	◯	◯
taken in de klas zelfstandig kunnen beginnen en afmaken.	◯	◯	◯	◯	◯
aandachtig zijn in de klas.	◯	◯	◯	◯	◯

U bent reeds over de helft van de vragen. Gelieve nog even verder aandachtig de vragen in te vullen.

15. Duid aan in welke mate u akkoord gaat met de volgende uitspraken.

	absoluut niet akkoord	niet akkoord	neutraal	akkoord	volledig akkoord
Anderstalige kinderen moeten aangespoord worden om thuis zo veel mogelijk Nederlands te spreken.	◯	◯	◯	◯	◯
De schoolbibliotheek (klasbibliotheek, boekenhoek) dient ook boeken te bevatten in de eigen taal van de anderstalige kinderen.	◯	◯	◯	◯	◯
Anderstalige kinderen dienen voor hun eigen goed gesanctioneerd te worden wanneer ze op school geen Nederlands spreken.	◯	◯	◯	◯	◯
Een gebrekkige kennis van het Nederlands is de belangrijkste reden waarom anderstalige leerlingen minder succesvol zijn.	◯	◯	◯	◯	◯
Anderstalige kinderen moeten gestimuleerd worden om binnen en buiten de school ook hun moedertaal te spreken.	◯	◯	◯	◯	◯

16. Duid aan in welke mate u akkoord gaat met de volgende uitspraken:

	absoluut niet akkoord	niet akkoord	neutraal	akkoord	volledig akkoord
Ik werk in de klas uitdrukkelijk rond het thema van etnische diversiteit.	◯	◯	◯	◯	◯
Ik bied leerinhouden aan die de multiculturele samenleving in al haar facetten weerspiegelen.	◯	◯	◯	◯	◯
Omwille van neutraliteit, schenk ik in de klas weinig aandacht aan etnische verschillen.	◯	◯	◯	◯	◯
In de globale inrichting en aankleding van de klas, belicht ik de leefwerelden van de multiculturele samenleving.	◯	◯	◯	◯	◯
Etnische diversiteit komt weinig voor in het lesmateriaal dat ik gebruik.	◯	◯	◯	◯	◯
Ik maak mijn leerlingen attent op de problematiek van racisme.	◯	◯	◯	◯	◯

17. In welke mate gaat u akkoord met de volgende uitspraken over de leerlingen, ouders, collega's en directie van deze school?

	absoluut niet akkoord	niet akkoord	neutraal	akkoord	volledig akkoord
De leerlingen zijn betrouwbaar.	◯	◯	◯	◯	◯
De leerlingen zijn zorgzaam voor elkaar.	◯	◯	◯	◯	◯
Je kunt erop rekenen dat de leerlingen hun werk doen.	◯	◯	◯	◯	◯
Je mag geloof hechten aan wat de leerlingen vertellen.	◯	◯	◯	◯	◯
Je kunt de leerlingen vertrouwen.	◯	◯	◯	◯	◯
Je moet de leerlingen nauwlettend in de gaten houden.	◯	◯	◯	◯	◯
De leerlingen zijn competent.	◯	◯	◯	◯	◯
De leerlingen spieken of plegen bedrog als ze er de kans toe zien.	◯	◯	◯	◯	◯
De leerlingen zijn gesloten.	◯	◯	◯	◯	◯
De leerlingen praten vrijuit over hun leven buiten de school.	◯	◯	◯	◯	◯
Je kunt op de ouders rekenen.	◯	◯	◯	◯	◯
De meeste ouders spannen zich in.	◯	◯	◯	◯	◯
Je kunt erop vertrouwen dat de ouders je als leerkracht steunen.	◯	◯	◯	◯	◯
De ouders zijn betrouwbaar als ze zich engageren.	◯	◯	◯	◯	◯
Je kunt geloof hechten aan wat de ouders je vertellen.	◯	◯	◯	◯	◯
Ik ben op mijn hoede voor de andere leerkrachten.	◯	◯	◯	◯	◯
Ik sta achterdochtig tegenover mijn collega's.	◯	◯	◯	◯	◯
Ik vertrouw de leerkrachten op deze school.	◯	◯	◯	◯	◯
Zelfs in moeilijke situaties kan ik steunen op de andere leerkrachten.	◯	◯	◯	◯	◯
Ik geloof in de leerkrachten op deze school.	◯	◯	◯	◯	◯
De leerkrachten in deze school maken misbruik van elkaar.	◯	◯	◯	◯	◯
Ik heb vertrouwen in de integriteit van mijn collega's.	◯	◯	◯	◯	◯
Ik ben achterdochtig bij de meeste daden van de directie.	◯	◯	◯	◯	◯
Ik heb vertrouwen in de integriteit van de directie.	◯	◯	◯	◯	◯
De directie maakt misbruik van de leerkrachten.	◯	◯	◯	◯	◯
De directie handelt steeds in het belang van de leerkrachten.	◯	◯	◯	◯	◯
Ik stel de drijfveren van de directie vaak in vraag.	◯	◯	◯	◯	◯
Ik heb vertrouwen in de directie.	◯	◯	◯	◯	◯
De directie houdt haar woord.	◯	◯	◯	◯	◯

18. Hoe vaak hebben leerlingen op deze school ruzie/conflict met elkaar?

◯ nooit ◯ zelden ◯ soms ◯ vaak ◯ heel vaak

19. Hoe vaak hebben autochtone (Belgische) en allochtone (niet-Belgische) leerlingen op deze school ruzie/conflict met elkaar?

◯ nooit ◯ zelden ◯ soms ◯ vaak ◯ heel vaak

20. Hoeveel autochtone en allochtone leerlingen zijn op school bevriend met elkaar?

◯ geen enkele ◯ enkele ◯ de helft ◯ de meeste

21. Hoe vaak per jaar zijn er in deze school oudercontacten om de vooruitgang en / of prestaties van de leerlingen te bespreken?

◯ 0 ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 of meer

22. Hoeveel percent van de *allochtone* ouders spreekt u bij de oudercontacten (naar schatting)?

◯ N.v.t. ◯ 0 - 20 % ◯ 21 - 40 % ◯ 41 - 60 % ◯ 61 - 80 % ◯ 81 - 100 %

23. Hoeveel percent van de *autochtone* ouders spreekt u bij de oudercontacten (naar schatting)?

◯ N.v.t. ◯ 0 - 20 % ◯ 21 - 40 % ◯ 41 - 60 % ◯ 61 - 80 % ◯ 81 - 100 %

24. Welke invloed heeft uw contact met *allochtone* ouders volgens u op de vooruitgang en / of prestaties van de leerlingen?

◯ n.v.t ◯ helemaal geen ◯ weinig ◯ redelijk ◯ veel ◯ heel veel

25. Welke invloed heeft uw contact met *autochtone* ouders volgens u op de vooruitgang en / of prestaties van de leerlingen?

◯ n.v.t. ◯ helemaal geen ◯ weinig ◯ redelijk ◯ veel ◯ heel veel

26. Duid aan in welke mate u akkoord gaat met de volgende uitspraken:

	absoluut niet akkoord	niet akkoord	neutraal	akkoord	volledig akkoord
Leerlingen worden op deze school gepest omwille van hun ras of etnische afkomst.	◯	◯	◯	◯	◯
Leerlingen worden op deze school uitgesloten omwille van hun ras of etnische afkomst.	◯	◯	◯	◯	◯
Leerlingen worden op deze school uitgescholden omwille van hun ras of etnische afkomst.	◯	◯	◯	◯	◯

27. Duid aan in welke mate u akkoord gaat met de volgende uitspraken:

	absoluut niet akkoord	niet akkoord	neutraal	akkoord	volledig akkoord
Er is niets verkeerd aan dat mensen van verschillende etnische achtergronden samen kinderen hebben/opvoeden.	◯	◯	◯	◯	◯
Het lakse immigratie- en het vluchtelingenbeleid van België heeft geleid tot een verslechtering/achteruitgang voor België.	◯	◯	◯	◯	◯
Het toegankelijk maken van alle openbare voorzieningen voor gehandicapten is gewoonweg te duur.	◯	◯	◯	◯	◯
Het aanvaarden van vele verschillende levenswijzen in België zal ons land sterker maken als natie.	◯	◯	◯	◯	◯
Dat koppels van hetzelfde geslacht kinderen mogen opvoeden is een slecht idee.	◯	◯	◯	◯	◯
De reden dat mensen in armoede leven is omdat ze niet gemotiveerd zijn zichzelf uit de armoede te redden.	◯	◯	◯	◯	◯
Mensen zouden betekenisvolle vriendschapsrelaties moeten ontwikkelen met andere mensen van verschillende etnische groepen.	◯	◯	◯	◯	◯
Mensen met fysieke beperkingen zijn minder efficiënte leiders dan mensen zonder fysieke beperkingen.	◯	◯	◯	◯	◯
Over het algemeen waarderen autochtonen het onderwijs hoger dan allochtonen.	◯	◯	◯	◯	◯
In onze samenleving blijven veel vrouwen in armoede leven omdat mannen belangrijke domeinen van de Belgische samenleving domineren.	◯	◯	◯	◯	◯
Mannen hebben recht op hogere lonen aangezien ze vaker dan vrouwen gezinshoofden zijn.	◯	◯	◯	◯	◯
Het is goed dat mensen betekenisvolle vriendschapsrelaties ontwikkelen met mensen met een andere seksuele voorkeur.	◯	◯	◯	◯	◯
De samenleving zou homoseksuele en lesbische levensstijlen niet verder mogen accepteren.	◯	◯	◯	◯	◯
Dat migranten het Nederlands leren is belangrijker dan dat ze hun eigen taal behouden.	◯	◯	◯	◯	◯
Over het algemeen zijn mannen betere leiders dan vrouwen.	◯	◯	◯	◯	◯

Dit zijn de laatste vragen. Wij danken u al voor uw medewerking.

28. Duid aan in welke mate u akkoord gaat met de volgende uitspraken:

	absoluut niet akkoord	niet akkoord	neutraal	akkoord	volledig akkoord
Men zou van leerkrachten niet mogen verwachten dat ze hun leermethode/onderwijsmethode aanpassen aan de noden van alle leerlingen.	◯	◯	◯	◯	◯
Het onderwijs leunt traditioneel meer aan bij de normen en waarden van de sociale middenklasse	◯	◯	◯	◯	◯
Homo's en lesbiennes zouden niet mogen les geven in het onderwijs.	◯	◯	◯	◯	◯
De basiskennis van verschillende godsdiensten zullen leerlingen en leerkrachten ten goede komen.	◯	◯	◯	◯	◯
Het geld dat gespendeerd wordt aan onderwijs voor zwaar gehandicapten zou beter gespendeerd worden aan programma's voor begaafde studenten.	◯	◯	◯	◯	◯
Alle studenten zouden aangemoedigd moeten worden om een tweede taal te leren.	◯	◯	◯	◯	◯
Enkel die scholen die allochtone leerlingen onderwijzen, hebben allochtoon personeel nodig.	◯	◯	◯	◯	◯
Meisjes krijgen op school ongeveer evenveel aandacht als jongens.	◯	◯	◯	◯	◯
Testen van buiten de school (bvb. CLB testen) worden gebruikt om leerlingen in aparte onderwijsvormen (ASO, TSO, BSO) te plaatsen.	◯	◯	◯	◯	◯
In de meeste schoolboeken zijn allochtonen voldoende zichtbaar.	◯	◯	◯	◯	◯
Studenten met fysieke beperkingen moeten zoveel mogelijk geplaatst worden in het gewone onderwijs.	◯	◯	◯	◯	◯
Mannen krijgen meer mogelijkheden in wiskunde en wetenschap dan vrouwen.	◯	◯	◯	◯	◯
Over het algemeen zouden leerkrachten leerlingen moeten groeperen volgens hun bekwaamheden.	◯	◯	◯	◯	◯
Leerlingen die in concentratiewijken wonen, kunnen er baat bij hebben te participeren in etnische gemengde klassen.	◯	◯	◯	◯	◯
In het onderwijs wordt slechts de cultuur van één groep weerspiegelt, namelijk de autochtonen.	◯	◯	◯	◯	◯
Anderstalige leerlingen zouden eerst onderwijs moeten krijgen in de eigen taal tot ze bekwaam genoeg zijn om in het Nederlands onderwezen te worden.	◯	◯	◯	◯	◯
Leerkrachten verwachten vaak minder van leerlingen uit lagere sociaal-economische groepen.	◯	◯	◯	◯	◯
Allochtone leerlingen hebben meer baat bij intercultureel onderwijs.	◯	◯	◯	◯	◯
Er is nood aan meer vrouwen in de schooldirectie.	◯	◯	◯	◯	◯
Veel allochtone studenten worden ten onrechte verwezen naar buitengewoon onderwijs door het schoolpersoneel.	◯	◯	◯	◯	◯
Leerkrachten zouden ervaring moeten opdoen met leerlingen van verschillende etnische en culturele achtergronden opdat ze doeltreffend zouden kunnen werken met alle leerlingen.	◯	◯	◯	◯	◯
Leerlingen uit lagere sociaal-economische klassen hebben minder onderwijskansen dan hun mede-leerlingen uit de middenklassen.	◯	◯	◯	◯	◯
Er zou niet toegelaten mogen worden dat leerlingen op school een andere taal dan Nederlands spreken.	◯	◯	◯	◯	◯
Het is belangrijk om religieuze diversiteit in overweging te nemen bij het vormen van het schoolbeleid.	◯	◯	◯	◯	◯
Intercultureel onderwijs is minder belangrijk als lezen, schrijven, rekenen en informaticakennis.	◯	◯	◯	◯	◯

29. Heeft u nog vragen of opmerkingen?